

# 2005 BUDGET

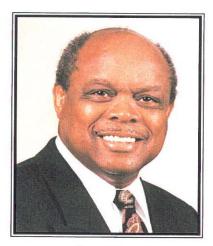


The 2005 Budget Book is dedicated to our many dedicated long-term employees that retired during 2004. The Manager and Staff of Denver Water thank these employees for their years of devoted service and leadership.

We have placed pictures of and information about these devoted workers throughout the budget book. Many of these people were hard at work for Denver Water before there was a Lake Dillon or an Administration building at the West Side Complex.

Their dedication to excellence helped bring Denver Water through good times and bad over the past four decades and without them we wouldn't be the diverse and dynamic organization we are today.

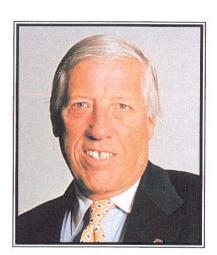
## **Denver Board of Water Commissioners**



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William R. Roberts
Marketing Director of
Empire Construction Services



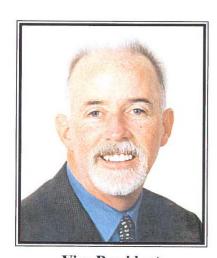
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Chips Barry, Manager

March 1st, 2005

Board of Water Commissioners City and County of Denver Denver, Colorado 80204-3412

Re: Denver Water 2005 Budget

To Our Customers and Interested Readers:

On December 7<sup>th</sup>, 2004 the Board of Water Commissioners adopted Denver Water's budget for 2005. This budget reflects our two principal commitments to our customers: to provide an adequate and reliable supply of high-quality water and to develop additional supplies for the future.

Denver Water spent the last year amid the continuing drought. The drought had two major impacts: a reduced water supply in our reservoirs and substantially reduced revenue brought on by necessary reductions in water consumption.

Three causes were responsible for this drop in water sales: voluntary conservation measures, which we encouraged in the early months of the year; water-use restrictions, which we mandated mid-year when the scope of drought became clear; and a drought surcharge, also implemented at mid-year, which put additional downward pressure on water use.

What remained unchanged in 2004 were our operational realities: fixed costs and a substantial list of tasks necessary to maintain our infrastructure properly. Nevertheless, we did our best to streamline operations, defer maintenance when possible, limit hiring, and carry out other measures to reduce spending as much as possible during the year.

In fact, despite the complexities of managing in a drought, we kept a series of significant capital construction projects on schedule. We completed the Recycled Water Plant on time and completed a series of improvements to the Marston Treatment Plant to help ensure as predictable a water supply as possible. We also accelerated our pipe rehabilitation program, relining 29,000 feet of conduit to protect against costly pipe failure.

For the moment, our future would seem to be one of less water, reduced revenue, and continued fixed operational costs. Yet drought is a part of the natural weather cycle in Colorado, and at some point we will emerge from it. To do so successfully, we must tend to a number of policy, infrastructure-investment, and capacity-planning matters. I have outlined some of the more significant efforts in the goals and objectives section below.

#### 2005 Goals & Objectives

Denver Water's goals and objectives are driven by our Strategic and Integrated Resource Plans. These plans have helped the utility achieve many goals over the last ten years. Seven important goals for 2005 are:

#### **Reform Board Meeting Procedures**

The City Charter requires that the Board meet twice a month. Historically, both meetings have mixed normal business decisions and policy discussions. In 2005, we intend to change the format to include one normal business meeting devoted to standard action items and one work-study session devoted primarily to policy matters. This practice will allow the Board to focus concentrated blocks of time and energy on policy issues that are crucial to meeting the utility's current and future service demands.

#### **Continue to Respond Effectively to the Drought**

We gained a number of important insights into managing our operations during the drought. Because drought is part of the naturally occurring weather cycle of Colorado, we will continue to distill those experiences into effective practices over the coming year. Doing so will serve us well should the drought continue—or in the next drought cycle that will inevitably occur.

In 2005, we will continue to pay close attention to the relationship between water consumption and fiscal health. Water restrictions and customer conservation helped preserve precious water supplies during the drought. Yet it also reduced revenue from water sales, forcing the utility to defer construction and maintenance, limit staffing, and delay other measures that contribute to an efficient water-distribution system.

Just as we have fiscal and operational contingency plans in the event of a continued drought, we have similar roadmaps in place to accommodate a gradual rise in water demand in the drought's absence. To that end, we will continue to monitor snow pack, runoff, reservoir-level, and water-consumption data, and adjust our financial models accordingly.

# Improve the Information Infrastructure Including the Customer Information and Billing System

In 2004, we continued a multi-year effort that will enable us to develop new information-sharing tools, increase operational efficiencies, reduce costs, and deliver entirely new types of customer services.

Driving this revitalization of data processing infrastructure is the reality that sharing information widely can drive down costs, reduce response times, and make Denver Water more nimble in its ability to respond to changing weather, water-consumption habits, and revenue projections. But the near obsolescence of our information technology infrastructure makes it increasingly difficult and costly for us to maintain it, let alone create new and innovative ways of sharing and delivering information. In 2005, we will continue our focus on information technology infrastructure improvements.

The creation of a new Customer Information and Billing System (CIS) is the central piece of this effort. By consolidating customer-related information, the CIS makes it easier to track the history of a customer's account, from the sale of the original tap to its most recent bill. The CIS will serve as the backbone for a number of important information-driven initiatives, including monthly billing; expanded online, in-person, and voice-activated customer services; and a variety of mobile workforce automation projects to dispatch, route, and track our field personnel as efficiently as possible.

As important, the CIS will make it easier to support emerging water rate designs—and to drastically reduce the programming necessary to implement them.

#### **Monitor National and Regional Issues**

In 2005, we will continue to monitor a variety of state, regional, and national issues that have the potential to affect Denver Water's operation and water supply. These issues include, but are not necessarily limited to, developments on the Colorado River, the impact of the Endangered Species Protection Program on the South Platte River below Denver, Colorado River Compact issues, and several significant cases in the Federal Court system related to the conveyance of water in stream channels from one place to another.

We remain committed to protecting our assets from any adverse outcomes so that we may continue to provide a reliable supply of high-quality water to our customers.

#### **Continue Cooperative Regional Planning**

We will continue our cooperative regional planning work with a variety of entities, including the South Metro Water Authority and Douglas County, City of Aurora, East Cherry Creek Valley Water and Sanitation Districts, and others, regarding their water supply development plans. We will foster a Front Range political coalition to seek common ground on acceptable Basin-of-Origin proposals and related legislation in the Colorado State Assembly.

#### **Future Water Supply Planning**

In 2005, we will continue to work on various methods for adding the water supply needed to serve our growing customer base. To that end, we will continue preparing an environmental impact statement ("EIS") for the Moffat Collection System Project.

The EIS is the first step in a process that will culminate in our seeking authorization from the U.S. Army Corps of Engineers for the construction of the project. When approved and constructed, the project will provide up to 18,000 acre-feet of new water to the Moffat Treatment Plant, and will help meet projected near-term demand for treated water. It will also reduce problems related to water delivery attributed to insufficient water supplies available to the Moffat plant.

In 2005, we will continue working through the National Environmental Policy Act (EIS) process to gain permits for this north end supply effort. A draft EIS is expected to be published in early 2006.

#### Resume Maintenance Projects Delayed by the Drought and Fires

During the past seven years, Denver Water has focused on construction of new projects, mostly related to water treatment or recycled water. With many of those projects complete, the utility would naturally turn to routine maintenance and upgrades to other components of its water-distribution infrastructure.

Unfortunately, some important system maintenance tasks were delayed because of the fiscal impact of the drought and the 2002 fires. We will prioritize and complete the most important of these tasks in 2005 and 2006.

#### 2004 Budget Performance

#### Receipts

Denver Water's total 2004 receipts were \$207.3 million or \$2.5 million less than budget. Nevertheless, this performance was impressive given that receipts from water sales, our largest source of funds, were \$26.6 million less than budgeted due to the drought. Despite this loss, overall receipts were positively impacted by several factors including drought-related surcharges, unanticipated reimbursements, and higher than budgeted debt proceeds.

The drought and tap surcharges for 2004 went into effect on July 1 and were in place for two months. Together, they accounted for \$15.3 million in unbudgeted receipts before refunds.

The drought surcharge also resulted in significantly higher water bills for some customers with large lots. In late summer, the Board reevaluated the model and restructured the basis for the surcharge, resulting in a refund of approximately \$5.9 million. Due to our bi-monthly billing cycle, the majority of the refunds will be distributed in the first part of 2005. As of December 31, 2004, \$1.6 million in drought surcharge credits had been distributed to Denver Water customers.

The 2004 budget for reimbursements and grants was just under \$0.5 million. During the year we received unanticipated reimbursements from South Adams County Water and Sewer District and Adams County for their share of the work at the Adams County gravel pits. These reimbursements totaled \$1.6 million. In addition, we received an unbudgeted reimbursement for work on the T-REX construction project in the amount of \$1.4 million. Total reimbursements and grants for 2004 totaled \$3.6 million.

Denver Water had planned to issue \$9.0 million in new debt in 2004. Due to market conditions, the Treasury Section took a "wait and see" attitude. Late in the year, market conditions became favorable and we proceeded with the debt issuance. In addition to the \$9.0 budgeted for 2004, there was also \$5.0 million in new debt planned for 2005. Due to the favorable market conditions, the Board decided to issue \$14.3 million in new debt in 2004.

System Development Charge (SDC) and Participation receipts also helped to offset the decline in water sales receipts. SDC receipts were \$24.9 million, or \$2.9 million higher than budgeted. Participation receipts were slightly higher than budgeted at \$2.2 million.

Cash receipts from the investment portfolio totaled \$3.1 million, \$1.1 million less than budgeted. The low rates available in the short-term investment market were the primary driver of this variance.

#### Operation and Maintenance

In 2004, Operation and Maintenance expenditures of \$105.7 million exceeded the budget by \$2.2 million (2.0%). Expenditures were higher than anticipated in several areas including employee benefits costs and water-treatment chemicals. Please see the expenditure by program section for a detailed description of the factors driving Operation and Maintenance costs.

#### Capital Expenditures

In 2004, Capital Expenditures, including allocated overhead costs, totaled \$71.6 million. This figure was \$14.5 million, or 20%, less than budgeted. This variance is primarily due to projects which were delayed as a cost-saving response to the drought. The majority of the delayed projects are included in the 2005 Capital Budget.

#### Debt Service

Debt Service, Related Costs and Interest on Reserve Funds of \$38.4 million were slightly above the budgeted amount of \$37.8 million. In 2004, the Board issued water revenue refunding and improvement bonds in par amount of \$43,655,000. Of this amount \$14.3 million was new debt and the rest was placed in escrow to pay for bonds that will mature in the future. The variance in Debt Service and Related costs was due to insurance required on the Series 2004 bonds.

#### Number of Employees

The number of regular employees at the end of 2004 was 1,038.

#### Payroll and Benefits

Payroll expenses in 2004 were \$62.2 million; \$1.4 million (2.2%) less than budgeted. When combined with the 3% vacancy savings already included in the 2004 budget, the total vacancy savings were 5.2% for the year.

Denver Water continues to be challenged by the rising costs of employee health care. Although the organization continues to try to reduce costs through our health clinic, fitness center, and wellness programs, 2004 presented some unanticipated costs that were extraordinary in nature. In total, Employee Health insurance expenditures were \$11.3 million, which was \$1.3 million higher than budgeted. These expenses were partially offset by employee contributions to health care premiums which are reflected in the receipt numbers for 2004.

Contributions to the defined benefit retirement plan were also slightly higher than anticipated. The increase of \$0.4 million over the budget was due to the Board's practice of contributing the amount recommended by the actuarial study, the results of which are not available until after the budget process has been completed.

#### Designated Balance

For year-end 2004, the Designated Ending Balance of \$154.9 million was \$9.2 million more than budgeted.

The 2004 Designated Ending Balance is allocated as follows: Operation and Maintenance in the amount of \$29.7 million, Non-Expansion Capital in the amount of \$16.9 million, Debt Service reserves of \$44.4 million, Self Insurance reserves of \$8.5 million, Future Capital projects of \$41.8 million, drought-related conservation and tap surcharges totaling \$13.6 million.

#### 2005 Budget

#### Receipts

Denver Water's receipts for 2005 are budgeted to be \$232.7 million. Operating receipts are \$169.4 million and reflect the assumption that receipts for water sales will gradually return to normal levels as we recover from the drought. Receipts from the sale of water comprise approximately 73% of the total receipt budget for 2005. The projected water sales revenue

assumes that total demand will be at 89% of normal and also includes a rate increase of 8% that went into effect on January 1, 2005.

SDCs are expected to total \$22.5 million in 2005. The increase reflects a slight growth (1.2%) in the level of tap sales for 2005 and includes an average 9% SDC rate increase over 2004 levels.

Debt Service proceeds are estimated to be \$25.0 million. All funds received from the sale of debt will be used to refund existing debt. Expected receipts from investments are \$4.2 million, which is an increase of \$1.0 million from 2004 interest income. The projection for the coming year reflects an expectation of higher short-term investment rates.

#### Operation and Maintenance

Operation and Maintenance expenditures for 2005 are budgeted at \$107.3 million, \$1.6 million more than the 2004 expenditures. The majority of the budget increase can be found in two areas: Storage Reservoirs and Employee Benefits.

The Hayman Fire of 2002 burned 138,000 acres of forested watershed along the South Platte River, including 7,250 acres around Cheesman Reservoir. In order to combat the accumulation of sediment in the reservoir, Denver Water built sediment traps on Goose Creek and Turkey Creek. These traps keep sediment from accumulating in the reservoir; however, sediment accumulates behind the trap and must be removed. The 2005 budget includes new costs for dredging the traps. Also included is \$0.4 million for a dredging project at Marston Lake designed to eliminate odor and taste problems the originate in sludge and aquatic vegetation around the lake.

Denver Water, like many other public and private sector organizations, continues to confront the rising costs of employee benefits. The 2005 budget includes \$29.4 million for employee benefits, which is only slightly higher than estimated expenditures for 2004.

#### Capital Expenditures

The 2005 Capital Expenditure budget is \$88.7 million, including allocated overheads. This number is \$17.0 million more than anticipated expenditures for 2004. During 2004, many projects were delayed in response to the continuing drought. The increase in Capital Expenditures for 2005 reflects gradual return to non-drought conditions.

The Capital Plan reflects a renewed focus on transmission and distribution maintenance projects that have been given less priority in the past few years due to the drought. The 2005 budget includes \$3.1 million for main improvements and replacements, \$2.2 million for vault modifications and repair, as well as funding for many crucial smaller maintenance projects.

#### Number of Employees

The number of authorized regular full-time employees is projected to increase by one (0.09%) to 1,096 in 2005. This number represents a 100% staffing level. Typically, Denver Water maintains a vacancy rate of approximately 3.5%. In 2004, the Manager chose to maintain a higher vacancy rate (6%) in response to the drought. In order to mirror the "drought shadow" that will continue to impact revenues, we plan to maintain a vacancy rate of 4.5% in 2005.

#### Payroll and Benefits

Budgeted payroll for 2005 is \$63.9 million, \$1.7 million more than the estimated expenditures for 2004. The budget includes hiring new employees, filling some vacant positions, and the budgeted pay increase which averages 2.3%.

Employee benefit plan costs are budgeted at \$29.4 million for 2005, a slight increase (1.0%) from 2004 estimates. The increase is primarily attributable to the costs of health insurance for employees. Employee contribution to health care costs will also rise an average of 13% in 2005.

#### Debt Service

Debt Service costs for 2005 are budgeted at \$44.4 million for debt service and related costs.

#### Designated Balance

The designated balance for 2005 is estimated to decrease by \$7.7 million to \$147.3 million by the end of the year. This reduction is due substantially to planned uses of the funds for capital projects.

The 2005 designated ending balance is allocated as follows: Operation and Maintenance of \$31.6 million, Drought Surcharge Refund of (\$2.7) million, Non-Expansion Capital of \$14.9 million, Debt Service principal and interest of \$48.6 million, Self Insurance reserves of \$9.5 million, and Future Capital projects of \$45.3 million.

#### **Financial Overview**

Denver Water's financial status is strong and is projected to continue to be so over our planning horizon of 10 years. The underlying ratings by Moody's, Fitch Ratings, and Standard and Poor's of our revenue bonds are Aa3, AA+, and AA, respectively. We will continue to monitor capital expenditures, water rates, debt levels, and designated balances to minimize rate increases or unanticipated large fluctuations in water rates. Designated balances are projected to meet or exceed targeted levels. Over the next 10 years, financial indicators for Denver Water are projected to remain strong and within conservative and prudent limits.

I am confident, as outlined in this letter, that this budget provides a responsible plan for physical and financial operations and the development of the Denver Water system in the next year.

Manager

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#### Mission, Values and Goals of Denver Water

#### **Charter Directives**

Denver Water was established in 1918 by the people of Denver as an independent agency with duties and responsibilities specifically spelled out in the City Charter. Since that time, the Denver Board of Water Commissioners has supplied water to Denver and contract distributors adjacent to Denver in accordance with the following charter directives: (See service area map on page 27).

The Board shall "... have complete charge and control of a water works system and plant for supplying the City and County of Denver and its inhabitants with water for all uses and purposes." Charter of the City and County of Denver, Section 10.1.1.

The Board shall fix rates which ".... shall be as low as good service will permit .. "and" .. may be sufficient to pay for operation, maintenance, reserves, debt service, additions, extensions, betterments, including those reasonably required for the anticipated growth of the Denver Metropolitan area and to provide for Denver's general welfare." Charter of the City and County of Denver, Section 10.1.9.

#### **Mission**

Denver Water will provide our customers with high quality water and excellent service through responsible and creative stewardship of the assets we manage. We will do this with a productive and diverse work force. We will actively participate in and be a responsible member of the water community.

#### **Organizational Values**

Our values describe the guiding principles and beliefs governing how all employees of Denver Water are expected to meet their responsibilities in carrying out the mission of the organization. These values provide the framework for effectively reaching decisions and guiding future actions within the Department.

- •We exist for the purpose of serving our customers.
- •We value our heritage of providing a high quality product and excellent service at a reasonable cost.
- •We strive to be responsible and accountable stewards in our use of public land and water, and environmental and financial resources.
- •We value a work force that reflects the diversity of the community we serve.
- •We expect accountability from Management in accomplishing the goals of the organization.
- •We manage water supply based on a long-term perspective on water issues.
- •We strive to show respect and courtesy in our relationships with others.
- •We want to be progressive, creative and open to new ideas and technologies to meet the challenges of the future.
- •We value the safety of our customers and the public.
- •We promote the highest level of health and safety for our employees.
- •We value our employees and enlist their contributions in operating, planning and policy matters.
- •We encourage employees' management of their career development.

#### Strategic Plan Vision for 2005

The Strategic Plan is the basis for setting priorities and determining Denver Water's future direction. The current Strategic Plan was revised in the spring of 1997.

#### Leadership

- •We will maintain the Denver Water system as one of the best in the country.
- •We will respect the natural environment.
- •We will be a leader in water conservation.
- •We will participate and provide leadership in all major Front Range water supply and water quality issues.
- •We will encourage and create cooperative projects with others.
- •We will possess credibility and influence with public, regulatory community, media and decision-makers at all levels of government.

#### Products & Services

- •We will provide drinking water that is always safe and meets our customers' expectations of quality and reliability.
- •Our customers will be pleased with our service, responsiveness and courtesy.
- •Our customers will believe that they receive high value for the cost of their water.
- •Our facilities will be well-maintained, running efficiently and reliably.
- •We will provide non-potable water for irrigation and industrial purposes.
- •We will take increasing advantage of technology to meet our goals.
- •We will anticipate new markets in order to provide ancillary products and services.
- •We will accommodate the recreational interests of the public, where practicable.

#### Organization

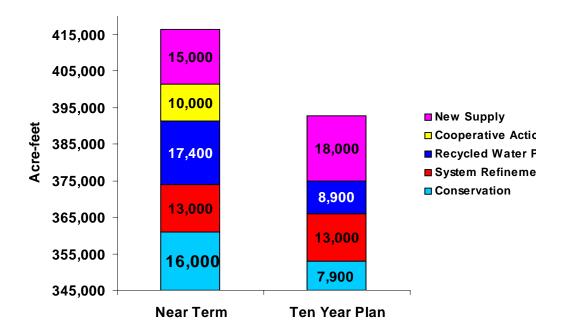
- •We will recognize and value the contributions of employees at every level.
- •We will remain a municipal organization that serves an increasing customer base without significant increases in numbers of employees.
- •Our Management and Staff will be worthy of the Board's trust and confidence.
- •Our entire organization will work diligently as a team, committed to the goals of the organization.
- •Our organizational culture will encourage open communication, creativity, risk taking and learning at all levels for the continual improvement of our products and services.
- •Our organization will accommodate a changing work force, including differing technological skills, languages, backgrounds and family demands.
- •Our employees and distributors will take pride in the professionalism of Denver Water.
- •We will emphasize the safety and health of employees.
- •All of our employees will be familiar with events and procedures at Denver Water and will be able to explain them to others.
- •All of our employees will possess the skills and accept the responsibility to manage their own careers.

#### **Integrated Resource Plan**

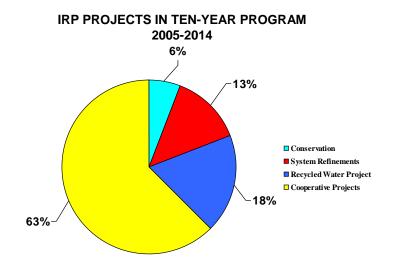
In addition to meeting existing customers' needs today, Denver Water must also plan for and meet future customer needs. For that reason, Denver Water conducts a continual and dynamic Integrated Resource Planning (IRP) process. Based on that process, the Board issued a Resource Statement in 1996 to define how Denver Water expects to meet future customers' needs. In 2001, Denver Water staff provided the Board with a status report on staff's efforts to implement the 1996 resource statement. In 2005, the Department will begin revising the IRP. An updated resource statement is expected in 2007.

Results of the IRP indicate that additional water supply, water reuse, and/or demand management will be required after 2016. By 2050, Denver Water will need an additional 75,000 acre-feet of water over existing supplies to meet customer demand assuming the Board maintains the full 30,000 acre feet of safety factor. The Board's Resource Statement mapped out a near term strategy that emphasizes aggressive conservation, non-potable reuse, and low cost system refinements as the first means of meeting demand beyond 2016. The initial implementation of that strategy is expressed in the Board's current Ten-Year Program as presented below.

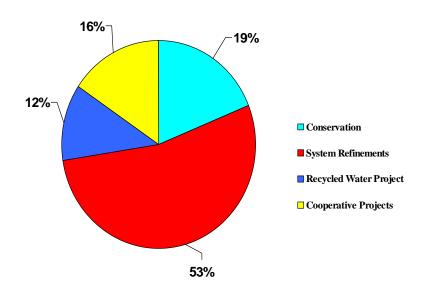
#### **NEAR TERM vs. TEN YEAR PLAN**



The continuity of 2005 Annual Budget expenditures with the Ten Year IRP implementation Plan is presented below



#### IRP PROJECTS IN THE 2005 BUDGET



# Integrated Resource Plan Projects (Thousands of Dollars)

# The table below presents 2005 Annual Budget, Ten-Year Program, and total planned expenditures by specific IRP categories and projects.

IRP Projects	2005	Ten-Year	Total	Estimated
(Listed in IRP order*)	Budget	Program	Project	Additional
		Costs	Cost	Water Yield
		(2005-2014)		(Acre-Feet)
CONSERVATION				
Outdoor Irrigation Efficiency	2,210	10,987	48,200	17,700
Xeriscape – General	320	1,256	2,290	926
Xeriscape – DW Properties	386	1,890	2,400	78
Indoor Use (C/I Processes, Cooling Twrs., Washers)	331	3,145	20,575	13,750
Subtotal	3,247	17,278	73,465	32,454
RECYCLED WATER PROJECT				
Recycled Water Project	2,047	53,540	164,000	17,660
SYSTEM REFINEMENTS				
Gravel Pit Storage	5,993	23,490	51,000	5,000
Central Platte Valley Parks	0	0	4,500	**
High Line Canal Water Yield Project	182	3,130	2,650	3,000
City Ditch Water Rights Transfer	30	400	420	**
Lower Chatfield Reservoir Pump Station	2,626	3,250	5,200	3,000
Lawn Irrigation Return Flows	354	1,000	2,300	500
Famell Lane Water Rights Transfer	5	10	200	150
Meadow Creek Water Rights	10	3,330	9,000	1,200
Antero Contract Rights	98	260	3,000	414
Elk Creek Water Rights	9	10	200	60
Platte Canyon Reservoir Outlet	0	110	600	200
Marston Seepage	0	0	310	400
Willis Case Golf Course & Rocky Mtn. Park	0	3,630	3,800	305
Subtotal	9,307	38,620	83,180	14,229
NEW SUPPLY AND COOPERATIVE PROJECTS				
Cooperative Project Southern Tier	49	110	Unknown	Unknown
Cooperative Project Northeast Tier	10	100	Unknown	Unknown
Cooperative Project-Aurora/S.Park Alternatives	83	1,120	Unknown	Unknown
N. End Supply Shortage Solution (Leyden or Other)	2,574	180,640	Unknown	Unknown
Subtotal	2,716	181,970	Unknown	Unknown

GRAND TOTAL 17,317 291,408 Unknown Unknown

<sup>\*</sup>Please note – the projects are categorized as they appear in the IRP and not as they are classified in the 2005 budget document.

<sup>\*\*</sup>Yields are included in the Recycled Water Project Yield.

#### **Financial Policies**

The financial policies set forth below are the basic framework for the financial management of Denver Water. The policies are intended to assist members of the Denver Board of Water Commissioners (Board) and Denver Water's staff in evaluating current activities and proposals for future programs. The policies are to be reviewed on an annual basis and modified to accommodate changing circumstances or conditions.

#### **Basis of Accounting and Financial Reporting**

- 1. The fiscal year for Denver Water shall begin on January 1 of each calendar year and will end on December 31 of the same calendar year.
- 2. Following the conclusion of the fiscal year, the Accounting section shall publish its financial reports and a Comprehensive Annual Financial Report (CAFR) prepared in accordance with generally accepted accounting and financial reporting principles established by the Governmental Accounting Standards Board.
- 3. The CAFR shall include the audited financial statements, including the opinion of the independent certified public accountants.
- 4. The Accounting section shall, each quarter, analyze and issue quarterly reports comparing financial results for the quarter and year to date with the same periods for the prior years.
- 5. Fixed asset records shall be maintained that provide sufficient detail information for monitoring, management and periodic inventorying of its facilities, land and water rights.

#### **Annual Budget**

- 1. Denver Water's Manager and Staff will prepare the annual budget in the context of a long-term financial plan.
- 2. The Board shall, at its option, appoint one or more of its members to a budget review committee to meet with the Manager and Directors to review and provide guidance for the Long Range Plans and Annual Budget.
- 3. The Budget section, prior to the end of December each year, shall submit to the Board the annual budget covering the next fiscal year. The budget shall contain the following information:
  - a. A letter from the Manager discussing the proposed financial plan for the next fiscal year, a review of the previous year's activities and the current financial condition of Denver Water.
  - b. Proposed capital, operation and maintenance and debt service expenditures by program and type of expenditure for the budget year, along with comparisons to estimated expenditures for the current year and actual expenditures for two prior years.
  - c. Proposed receipts, by source, for the budget year, along with comparisons to estimated receipts for the current year and actual receipts for three prior years.
  - d. Debt policies and a comparison of actual ratios to target ratios.
  - e. A table of organization with proposed staffing levels by division and section, along with comparisons to staffing levels for the current year.
  - f. A summary of designated balances for system operations normal replacements and improvements, debt service, self-insurance and future capital projects.
- 4. At least one public Board meeting shall be conducted prior to adoption of the budget.
- 5. The Board shall review the budget, making any additions or deletions they feel appropriate, and shall, prior to the end of the year, adopt the budget by quorum. If the Board fails to adopt the budget, Denver Water shall continue to operate with specific instructions from the Board regarding debt service, system operations and capital expenditures.

- 6. On final adoption, the budget shall be in effect for the budget year. It shall guide the activities of the Manager and Staff for the budget year.
- 7. The annual budget document shall be published in conformance with the Government Finance Officers Association's Distinguished Budget Program criteria. The final budget document shall be published no later than 90 days following the date the Board adopts the budget.
- 8. The Budget section shall monitor and report to the Manager and Staff the actual receipts and expenditures and shall compare them to budgeted receipts and expenditures on a monthly and year-to-date basis.

#### Revenues

- 1. Denver Water will set rates and fees at a level that recovers the projected full cost of providing service pursuant to the City Charter.
- 2. Under certain circumstances, such as during times of drought, a temporary rate, charge, fee or surcharge may be adopted to support the Board's short-term goals, meet unanticipated costs, supplement lost revenues and when deemed necessary, enforce other short-term or temporary needs.
- 3. The collection and use of temporary or unpredictable revenue sources shall not be relied upon to provide for ongoing capital or operation and maintenance activities.

#### **Expenditures**

- 1. In planning expenditures, Denver Water will follow the City Charter's mandate to keep rates as low as good service will permit. In general this means that Denver Water will properly maintain its facilities and continuously seek ways to operate more efficiently.
- 2. Debt policies are provided in Section 6 Debt Service, beginning on page 89.

#### **Balanced Budget**

Denver Water balances its budget by the planned use of or contribution to designated balances. The designated balances are maintained to provide for financial impacts to operation and maintenance, capital replacement, debt service and self-insurance. This approach is in accordance with the City Charter, which allows the accumulation of funds for improvements of such magnitude that they cannot be acquired from the surplus revenues of a single year.

#### **Long Term Financial Plans**

- 1. Denver Water's Manager and Staff shall annually prepare a capital project plan that shall identify all capital improvements likely to be needed during the next ten years to satisfy projected growth in demand for water and to maintain existing capacity to provide water.
- 2. Each year the Manager and Staff will prepare a ten-year Operations and Maintenance Plan that shall identify expenses for normal operations, including significant changes to current operations and expenses arising out of planned capital projects.
- 3. Each year Denver Water will develop a ten-year Financial Plan which incorporates projected revenues and expenditures included in the Capital and Operation & Maintenance Plans. The ten-year Financial Plan shall be used to develop one or more scenarios for financing projected expenditures.
- 4. The long-term plans will incorporate the Manager and Staff's assumptions with respect to revenues, expenditures and changes to designated balances over a ten-year horizon. The assumptions will be evaluated each year as part of the long-range planning and budget development process.

#### **The Budget Process**

#### Overview

The Board's policies that guide Denver Water are the Strategic Plan and the Integrated Resource Plan. The Strategic Plan provides the overall mission, values and goals (see pages 1 - 2). The Integrated Resource Plan provides specific operational policies regarding future water demand and supply options. A summary of these policies is on pages 3 - 5. The long-range plans are the financial expressions of these governing factors over a ten-year period. The annual budget is the definition of needs and allocations of available resources to accomplish the next year of the long-range plans.

#### Long Range Planning

Denver Water maintains long-range (10 years) capital, operation and maintenance and financial plans that are updated annually. The Ten-Year Capital Plan projects additions, improvements and replacements to water system facilities, based on projected demands for water (Integrated Resource Plan), Federal and State regulations and ongoing system requirements. It is used as the basis for projecting the annual Capital Work Plan. The Ten-Year Operation and Maintenance Plan includes the ongoing costs of operating and maintaining the water system and the impact of the Ten-Year Capital Plan on operations. The financial plan projects compliance with debt covenants and the year-end total designated balances. These balances result from the application of projected receipt sources available for projected capital, operation and maintenance and debt service expenditures. Alternative financial plans that address estimated revenue shortfalls are also projected as a part of the long-range planning effort.

#### **Annual Work Plan Budgets**

The detailed annual work plan budgets for operation and maintenance activities, debt and capital projects are developed during the budget process each year. These budgets are substantially based on the budget year projections provided by the long-range plans. These work plans itemize the cost of activities and projects within each program (See page 51 for description of programs).

#### **Annual Budget Preparation**

The annual budget is prepared on a program budget basis that follows the flow of water from the sources of raw water to customers' taps and cuts across organizational boundaries. The focus is first on what Denver Water as a whole is doing (what our resources are used for), then on organizational structure (the divisions and sections expending the resources), and then by type of expenditures (what types of resources – payroll, services, etc., are being used). The intent of this particular format is to facilitate the reader's understanding of how we are accomplishing our mission to serve our customers needs in the past, present and future.

All Cost Control Centers prepare their budgets on a capital project, operations and maintenance activity, by type of expenditure, by month basis. Budget development, monitoring and control reports are then available to budgeters and managers from project, Cost Control Center, and type of expenditure perspectives at summary and detail levels. The annual Capital Work Plan budget consists of 254 specific projects. The Operation and Maintenance Work Plan budget includes 175 specific activities. While some Cost Control Centers may budget to as few as four or five projects and activities, others may budget to 50 or more. This method provides the detailed "working" budget and reporting mechanism for inhouse purposes.

Cost Control Centers enter their budgets into a centralized computer system. This system is able to provide budget and actual information for combinations of cost control center, master plan item (projects and activities) and types of expenditures for any month or year-to-date of months.

The Cost Control Center budgets are then combined to collect costs on a department-wide basis for each of the projects and activities in the work plans. The information contained in the work plans and Cost Control Center budgets is summarized in this document.

#### **Budget Basis**

The annual budget is prepared on a modified accrual basis in which expenditures are reported and budgeted "as booked." The difference between expenditures "as booked" and disbursed is then included in Supporting Activities (Operation and Maintenance) as an adjustment. The adjustment converts the budgeted expenditures to a cash basis in order to determine the ending total of designated balances for system operation and land sales account amounts for presentation purposes. This differs from the basis of accounting, which uses the full accrual method in accordance with the Generally Accepted Accounting Principles (GAAP).

#### **Budget Schedule**

The 2006 budget development schedule on page 10 shows the process from the Integrated Resource Plan to Long Range Planning process to development of the annual budget and resulting budget approval by the Board of Water Commissioners.

#### **Budgeting Units**

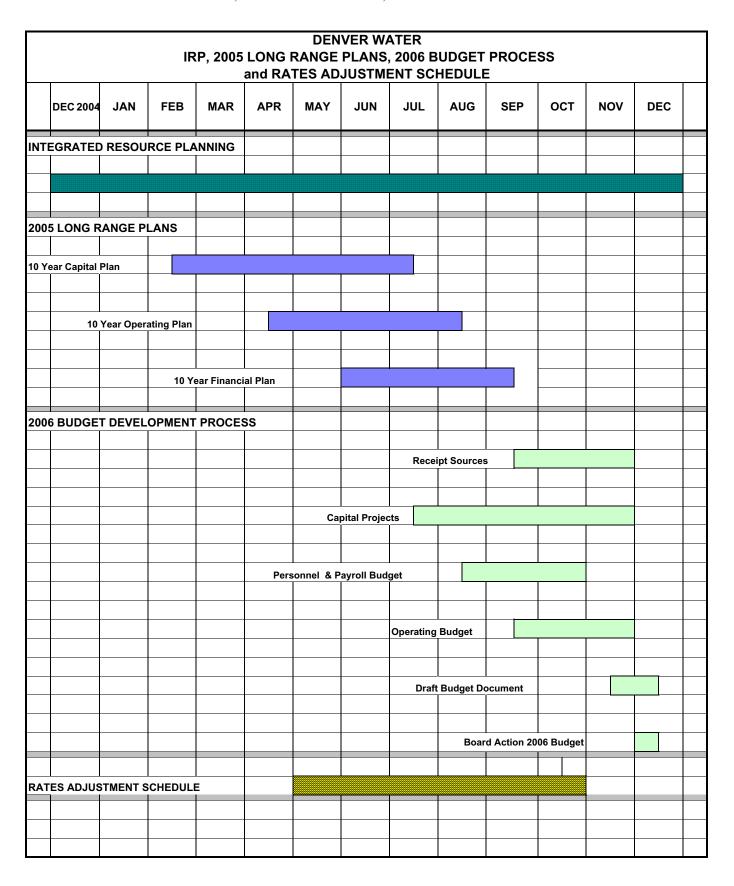
Denver Water is divided into seven operating divisions totaling ninety budgeting units or cost control centers. Seventy-nine of these cost control centers are comprised of groups of employees based on organizational structure. The remaining eleven are used to budget and control office furniture and equipment, personal computers, related expenditures and adjustments.

#### **Amending the Budget**

Amounts budgeted for specific projects and activities may be revised through the issuance of a special authorization. A special authorization request showing the budget code, cost control center(s) involved, reason for variance, amount of variance, revised estimate and schedule is prepared by the requesting Division. It is then approved by that Division Director and, if needed, the Manager, who will determine if Board approval is also required.

#### **Budget Presentation and Approval**

Denver Water is not required by City Charter or state law to make its draft budget available to the public prior to its adoption by the Board of Water Commissioners. The preliminary 2005 budget was reviewed by the Board's Budget Committee, presented in summary at one or more public Board meetings and presented in draft to the entire Board prior to its approval.



#### **Distinguished Budget Presentation Award**



The Government Finance Officers Association of the United States and Canada (GFOA) presented an Award of Distinguished Budget Presentation to Denver Water, Colorado for its annual budget for the fiscal year beginning January 1, 2004. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device.

This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

#### **Budget Controls and Updates**

Periodic reports are provided to the Board of Water Commissioners, Manager, Division Directors, Cost Control Center Managers and Budget Coordinators. Key reports include:

<u>Monthly Budget Status Summary</u> - Provided to the Board, Manager and Division Directors. Compares receipts to related capital and operating expenditures for the year-to-date and are broken down by type of expenditure. Budgeted and actual billed revenues are graphically compared to receipts from water sales by month-end and year to date.

<u>Monthly Budget Status Report</u> - Provides the Manager and Division Directors with graphs and summary tabulations of actual and budgeted receipts and expenditures for the month and year to date. Also included are explanations of major receipt, expenditure and designated balance variances and graphs showing each division's budget performance. Divisional Budget Coordinators also receive this information plus a detailed Receipt and Expenditure Budget report and a Gross Payroll Budget report by Division and Cost Control Center.

<u>Monthly Cost Control Center Budget Report</u> - Each Cost Control Center is provided with a comparison of month and year-to-date actual and budgeted expenditures by type of expenditure (Payroll, Materials, etc.). Annual budget amounts are also shown for comparative purposes.

<u>Monthly Cost Control Center by Master Plan Item Report</u> - This is a summary level report. Focus is on the capital projects and operation and maintenance activities that a cost control center has budgeted and/or charged during the year.

<u>Monthly Budget Variance Explanation Report</u> - Each month, cost control centers are required to explain significant variances between budgeted and actual expenditures.

<u>Intranet Expenditures Budget Reports</u> – Flexible budget reporting is available to all budgeters through the Intranet. Budgeters are able to make budget to actual comparisons for projects, cost control centers and type of expenditure combination, and "drill-down" to detail levels to obtain additional information as desired.

<u>Additional Reporting</u> – Additional reports can be created by the budgeters in the format and levels of detail required from the budget system.

#### **Financial Structure**

Denver Water is limited by City Charter to have only one fund, the Water Works Fund, for all its receipts and expenditures. The balance of the Water Works Fund is referred to in this budget document as the Designated Balance.

The Chart of Accounts utilized by Denver Water generally follows the structure presented by the National Association of Regulatory Utility Commissioners for Class A Water Utilities. The accounting system adheres to standards set by the Governmental Accounting Standards Board (GASB) and is audited annually by an independent CPA firm.

The Water Works system is completely funded through rates, fees and charges for services provided by Denver Water. Although Denver Water is an enterprise fund, there are no transfers to or from the general fund of the City and County of Denver.

Generally, water rates pay for operation and maintenance expenses, repair and capital replacements and modifications to existing facilities, and debt service. Capital expenditures for new facilities and water supply are generally funded from other non-rate sources of funds: system development charges, participation charges from developers, and reimbursements. Debt may be used to supplement these non-rate sources.

#### How to Read the 2005 Budget

#### From Summary to Detail

The 2005 Budget is arranged for easy reference. An overall summary is provided at the beginning of the budget. Summary level information is also presented at the beginning of each section within the budget document. Additionally, the narratives include references to related information found elsewhere in the document.

#### Components

Furthermore, each section of this budget booklet describes a particular component of the budget, as follows:

<u>For a summary overview of the entire 2005 Budget</u> - Read Section One. This section provides an overview of 2005 budgeted receipts, expenditures, designated balances and number of employees. It also includes a brief history of Denver Water and maps showing the area it serves and location of major facilities.

<u>For a receipt forecasts</u> - Read Section Two. This section provides information on all types of receipts.

<u>For expenditures by program</u> - Read Section Three. This section categorizes expenditures by program. Each major component of the process of providing water to our customers; raw water, recycling of water, treatment, delivery to customers, and general operations, are considered as programs. Each program is then further broken down into operation and maintenance and capital components. This format allows evaluation of the cost of each component of providing water from source to customer, down to detailed operation and maintenance activities and capital projects. It indicates why (for what activity or project) the expenditures are made. Information on both operation and maintenance activities as well as capital improvement and replacement projects is also provided.

<u>For expenditures by type</u> - Read Section Four. This section classifies total expenditures according to what was purchased, without regard to the activity or whether the expenditure was operation and maintenance or capital in nature. This section has information on the expenditures for labor, purchases of materials, services, equipment, construction contract payments, debt service and refunds.

<u>For information on Denver Water's organizational structure and performance measures</u> - Read Section Five. This section shows detailed number of employees, table of organization, activities by division and key performance measures for the organization.

<u>For information on debt</u> - Read Section Six. This section includes Denver Water's debt policy, debt service schedules and description of Certificate of Participation projects.

<u>For information on cash flow</u> - Read Section Seven. This section shows the impact of the 2005 budgeted receipts and expenditures on the designated balances and describes how these balances are to be used.

<u>For terms used in the budget document</u> - Read Section Eight. This section contains a glossary of terms.

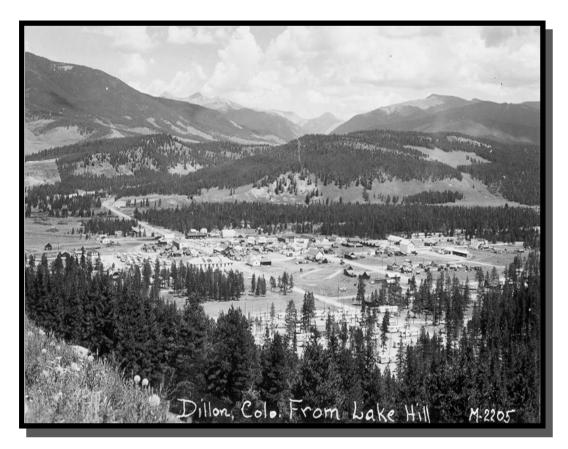


# Earlene Edwards Started: June 4, 1957 Clerk Typist, Engineering Retired: January 7, 2004 Admin. Executive Assistant, Manager and Staff

### Reynaldo Acosta

Started: March 14, 1962 Laborer-T&D, Plant Division Retired: January 29, 2004 Water Service Foreman, Operations & Maintenance Division





This picture, taken in 1960, shows the Town of Dillon, Colorado prior to the construction of Dillon Dam and Reservoir. The entire town had to be relocated to make way for the new reservoir. The project, completed in 1963, is Denver Water's largest storage reservoir and diverts water from the Blue River Basin through the Harold D. Roberts Tunnel under the Continental Divide into the South Platte River Basin. Dillon Dam is an earth-fill dam, 5,888 feet long by 231 feet above the Blue River stream bed. Dillon Reservoir's surface area of 3,233 acres and 26.8 miles of shoreline support many recreational activities.

#### Section 1 - 2005 Budget Summary

#### 2005 Beginning Balance

The 2005 Budget begins with a projected designated balance of \$154.9 million. Changes to the designated balance for prior years are detailed on page 95.

#### **Receipts**

Total receipts for 2005 are projected to be \$232.7 million, including \$169.5 million from the sale of water. This projection is based on the assumption that the drought of 2002-2004 is over and demand for treated water will gradually rise toward more historical levels. The 2005 receipt budget assumes that total demand will be at 89% of historical normal. Non-operating, interest, hydropower and other receipts total \$15.2 million. Receipts used for the construction of new facilities include \$2.6 million for participation receipts (payments to the Board for capacity in specific facilities to serve specific groups of customers) and \$22.6 million for System Development Charge receipts (tap fees). Also included in the 2005 receipt projections is the portion of the 2004 drought-surcharge rebate which will appear on customer bills in 2005. The rebates are expected to reduce receipts by \$2.7 million.

Reimbursements total \$450,000. This includes \$150,000 from the City of Aurora for its share of Strontia Springs Reservoir operation and maintenance and \$300,000 from numerous smaller projects based on historical trend. Proceeds from debt financing for 2005 are budgeted at \$25.0 million.

#### **Expenditures**

Total 2005 expenditures are budgeted at \$240.4 million. Operation and maintenance expenditures are budgeted to be \$107.3 million. Capital expenditures are budgeted at \$88.7 million. Debt service and related costs net of Interest on the debt service reserve funds are budgeted to be \$44.4 million.

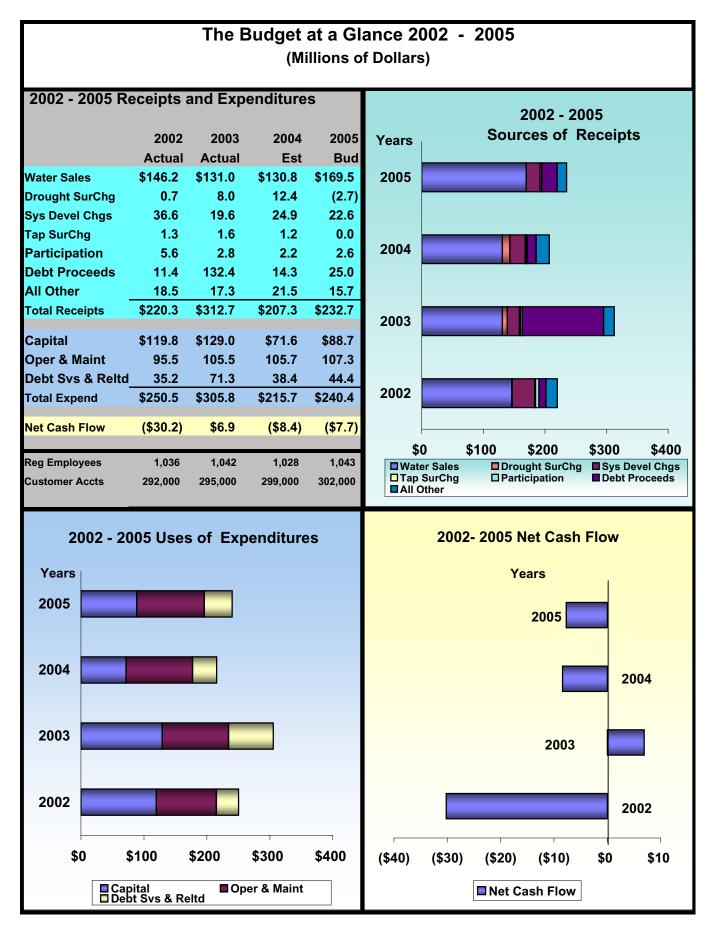
Major capital projects, which are discussed in detail beginning on page 54, include construction of the Gross Dam Hyrdro-electric powerhouse (\$6.5 million), the continuation of Marston finished water improvements (\$1.8 million), completion of the Automated Meter Reading project (\$1.1 million), work for the Moffat Collection System Project (\$2.6 million), and continuation of drought-related improvements at the Chatfield Pump Station (\$2.6 million). Also in 2005, work will resume on the Eleven Mile Reservoir outlet works drought related renovations (\$2.0 million). As we recover from the drought we will refocus our efforts on improvements to transmission and distribution mains (\$3.1 million) and implementing the new CIS system and other technology related systems and equipment (\$9.4 million).

#### 2005 Ending Balance

The 2005 budgeted expenditures of \$240.4 million are \$7.7 million more than projected receipts of \$232.7 million resulting in a projected ending designated balance of \$147.3 million. The designated balances for system operations and capital are maintained to cover a portion of: (1) operation and maintenance, (2) non-expansion capital, (3) debt service, (4) self-insurance and (5) future capital projects. For more details, see Section 7, Designated Balance.

#### **Summary 2005 Number of Employees**

The 2005 proposed regular and introductory number of employees of 1,096 is net increase of 1.0 over the 2004 approved staffing level. A comparison of 2002 through 2004 actual, 2005 budget, and budgeted 2005 regular and introductory employees by division is shown on page 73. Details of changes in authorized regular staffing levels is available on page "2005 Budgeted Table of Organization" on page 74.



# Summary of Receipts and Expenditures 2004 - 2005

		2004		2004		2005
		Budget		Estimated		Budget
Beginning Designated Balance	\$	163,405,000	\$	163,405,000	\$	154,996,000
Receipts from:						
Sale of Water	\$	157,450,000	\$	130,838,000	\$	169,492,000
Drought Surcharge		0		12,425,000		(2,657,000)
Non-Operating, Hydropower,						
Interest, & Other		18,879,000		17,760,000		15,202,000
System Development Charges		22,034,000		24,917,000		22,586,000
Tap Surcharge		0		1,195,000		0
Participation		2,036,000		2,241,000		2,593,000
Reimbursements & Grants		494,000		3,646,000		450,000
Subtotal	\$	200,893,000	\$	193,022,000	\$	207,666,000
Debt Proceeds		9,000,000	,	14,300,000	•	25,000,000
Total Receipts	\$	209,893,000	\$	207,322,000	\$	232,666,000
Less Expenditures for:						
Operation & Maintenance Programs:						
Raw Water	\$	14,089,000	\$	15,051,000	\$	17,194,000
Recycled Water	·	4,528,000		3,479,000		4,092,000
Water Treatment		21,144,000		21,720,000		23,330,000
Delivery		50,216,000		52,803,000		47,446,000
General Plant		13,606,000		12,640,000		15,232,000
Total Operation &			•		•	
Maintenance Expenditures	\$	103,583,000	\$	105,693,000	\$	107,294,000
Capital Programs:						
Raw Water	\$	16,456,000	\$	11,153,000	\$	26,449,000
Recycled Water		17,010,000		13,025,000		2,406,000
Water Treatment		4,789,000		7,271,000		5,139,000
Delivery		34,718,000		29,180,000		38,104,000
General Plant		18,119,000		10,964,000		16,560,000
Historical Timing Adjustment		(4,957,000)		0		0
Total Capital Expenditures	\$	86,135,000	\$	71,593,000	\$	88,658,000
Debt Service, Related Costs and Interest on Reserve Funds	\$	37,878,000	\$	38,445,000	\$	44,428,000
Total Expenditures	\$	227,596,000	\$	215,731,000	\$	240,380,000
Ending Designated Balance	\$	145,702,000	\$	154,996,000	\$	147,282,000

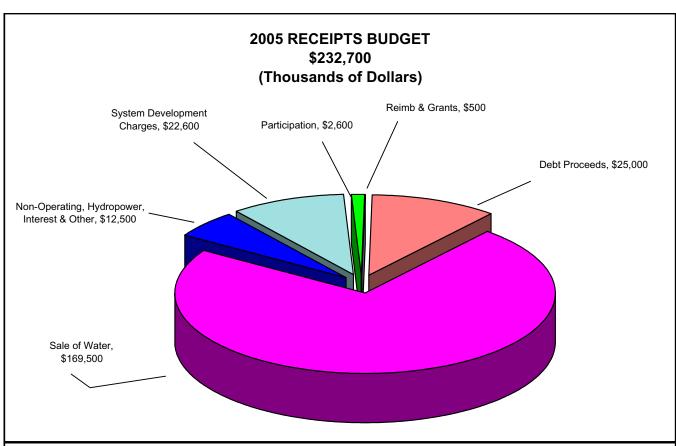
# Crosswalk of 2005 Budgeted Receipts to Related Capital and Operating Expenditures by Type of Expenditure Sources and Uses (Thousands of Dollars)

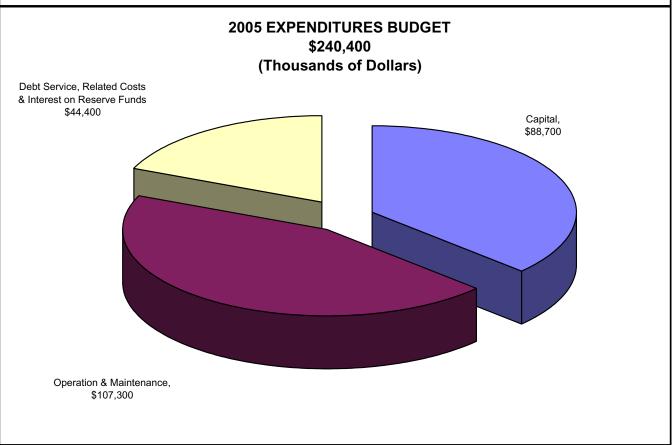
				Total						
		Oper &		Repl, Mod	l	New	Total		Debt	2005
		Maint		& Equip		Add, Impv	Capital		Service	Budget
SOURCES:										
Receipts:										
Operating	\$	98,101	\$	39,386	\$	12,577 \$	51,963	\$	19,428 \$	169,492
Drought Surcharge Rebates		(2,657)	)	0		0	0		0	(2,657)
Non-Operating		2,974		0		0	0		0	2,974
Hydropower		1,816		0		0	0		0	1,816
Systems Development Charges		0		0		22,586	22,586		0	22,586
Participation		0		0		2,593	2,593		0	2,593
Reimbursements & Grants		300		150		0	150		0	450
Interest on Investments		2,117		0		2,117	2,117		0	4,234
Other		4,643		0		1,535	1,535		0	6,178
Subtotal Receipts	\$	107,294	\$	39,536	\$	41,408 \$	80,944	\$	19,428 \$	207,666
Debt Proceeds	_	0		0	_	0	0		25,000	25,000
Total Receipts	\$	107,294	\$	39,536	\$	41,408 \$	80,944	\$	44,428 \$	232,666
Designated Balance	_	0		0	-	7,714	7,714		0	7,714
Total Sources	\$_	107,294	\$	39,536	\$	49,122 \$	88,658	\$	44,428 \$	240,380
USES:										
Expenditures:										
Gross Payroll	\$	49,334	\$	7,419	\$	7,154 \$	14,573	\$	0 \$	63,907
Employee Benefits		29,439		0		0	0		0	29,439
Materials and Supplies		12,211		3,222		2,453	5,675		0	17,886
Utilities & Pumping Power		5,419		0		0	0		0	5,419
Professional Services		4,955		376		5,306	5,682		0	10,637
Other Services		14,772		6,574		2,043	8,617		0	23,389
General Equipment		0		4,129		0	4,129		0	4,129
Construction Contract Payments		116		12,232		26,369	38,601		0	38,717
Refunds		464		0		0	0		0	464
Debt Service		0		0		0	0		44,010	44,010
Other		1,965		0		0	0		418	2,383
Total Expenditures	\$	118,675	\$	33,952	\$	43,325 \$	77,277	\$	44,428 \$	240,380
Distribution of Supporting Activities <sup>(1)</sup>	_	(11,381)	<u>.</u> .	5,584	_	5,797	11,381		0	0
Total Uses	\$_	107,294	\$	39,536	\$	49,122 \$	88,658	\$	44,428 \$	240,380

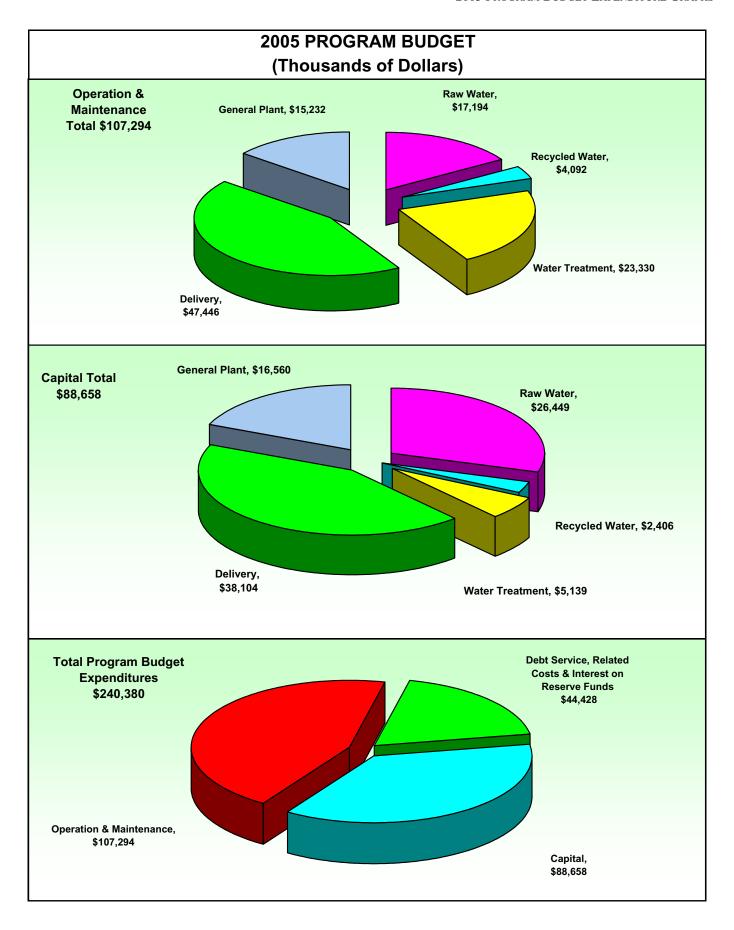
<sup>&</sup>lt;sup>(1)</sup> Supporting Activities are employee benefit, administrative and general expenditures that are not directly related to a specific capital project or operation and maintenance activity activity. These amounts are therefore allocated as indirect costs.

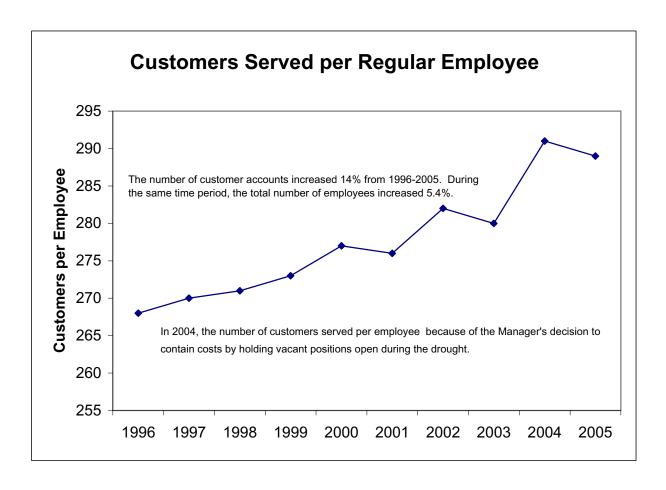
Drought, Rebate, Fire and Normal Operations Sources and Uses 2003 - 2005												
			(T	housands	of C	ollars)						
			ΟU	GHT RESP	ON				НТ	REBATE F	PRC	
		2003 Actual	2004 stimated	2005 d Budget			2003 Actual	Е	2004 stimated		2005 Budget	
SOURCES: Sale of Water Drought Penalties Drought Surcharge Drought Surcharge Rebate SDC Tap Surcharge Reimbursements and Grants: NRCS Grant	\$	100 6,801	\$	33 11,949 (1,388)	\$	- (2,258)	\$	1,641	\$	1,195	\$	
EPA Grant Reimbursements Debt Proceeds All Other		176										
Total Sources	\$	7,077	\$	10,594	\$	(2,258)	\$	1,641	\$	1,195	\$	-
USES: <sup>(1)</sup> O & M Capital Debt Service, Related Costs and Interest on Reserve Funds	\$	4,059 2,877	\$	1,072 1,286	\$	50 5,269	\$	3,615	\$	576	\$	1
Total Uses	\$	6,936	\$	2,358	\$	5,319	\$	3,615	\$	576	\$	1
Annual Net Balance Cumulative Balance (includes 2002) <sup>(2)</sup>	\$ \$	141 (1,006)		8,236 7,230	\$ \$	(7,577) (347)		(1,974) (803)	\$	619 (184)		(1) (185)
			FIR	E RESPON	SE		NORMAL OPERATIONS					
		2003 Actual	F	2004 stimated		2005 Budget		2003 Actual	E	2004 stimated		2005 Budget
SOURCES: Sale of Water Drought Penalties Drought Surcharge Drought Surcharge Rebate SDC	\$	1,200	\$	2,109 (245)	\$	- (399)	\$	130,938		130,805	\$	169,492 22,586
Tap Surcharge Reimbursements and Grants: NRCS Grant EPA Grant Reimbursements Debt Proceeds All Other Total Sources	\$	2,108 173 3,481	\$	1,864	\$	(399)	\$	963 132,438 16,518 300,506	\$	3,646 14,300 20,001 193,669	\$	450 25,000 17,795 235,323
. otal Godioos	ľ	0,401	Ψ	1,004	Ψ	(333)	ľ	000,000	Ψ	100,009	Ψ	200,020
USES: (1) O & M Capital Debt Service, Related Costs and Interest on Reserve Funds	\$	662 1,282	\$	- 927	\$	15	\$	108,062 113,945 71,338	\$	115,203 58,222 38,445	\$	118,852 71,443 43,095
Total Uses	\$	1,944	\$	927	\$	15	\$	293,345	\$	211,870	\$	233,390
Annual Net Balance Cumulative Balance (includes 2002) <sup>(2)</sup>	\$ \$	1,537 (720)	\$ \$	937 217	\$ \$	(414) (197)		N/A		N/A		N/A

 $<sup>^{(1)}</sup>$  Uses are on a direct expenditure basis for purposes of comparison to available resources.  $^{(2)}$  2002 Balances were: Drought (\$1,147), Rebate \$1,171, Fire (\$2,257)









Years	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Employees <sup>(1)</sup>	989	990	1,002	1,003	1,006	1,026	1,036	1,042	1,028	1,043
Customers <sup>(2)</sup>	265,000	267,000	271,000	274,000	279,000	283,000	292,000	295,000	299,000	302,000
Cust Per Empl	268	270	271	273	277	276	282	283	291	289

<sup>&</sup>lt;sup>(1)</sup> The number of employees shown are reqular employees as of the end of each year from 1996-2004. Budgeted 2005 number of regular employees is reduced by higher than normal vacancy savings due to the lingering effects of the droughts.

<sup>(2) 2004</sup> and 2005 number of customers is based on projection from the 2005 rate study.

#### **Denver Water - A Condensed History**

After decades of watching warring private water companies struggle to bring drinking water to the City, often at exorbitant rates, Denver residents voted in 1918 to pass City Charter amendments creating the Denver Board of Water Commissioners. Voters also approved purchase of the Denver Union Water Company, transforming it into a public agency whose mission remains providing healthy drinking water at a fair price.

Denver Union was the survivor of 11 private companies that attempted to supply water to the growing community at the foot of the Rockies. They ranged from the Capitol Hydraulic Company of 1860 - incorporated to dig a ditch from the South Platte River to Brown's Bluff, now the Capitol Hill section of Denver - to the wily and powerful Denver Union headed by such movers and shakers as Walter Scott Cheesman, David Moffat and E. S. Kassler.

Since Denver Union had been deeply involved in municipal politics, provisions of the 1918 charter amendments require totally separate water works fund out of reach of the general City government. Conversely, the Water Board has no access to City general funds. This was intended to assure that the Water Board performs its sole task of supplying water to the inhabitants of Denver "for all uses and purposes and ...at the lowest rates good service will allow." The Charter also directs the water system to pay its own way through charges for water service and earn enough for "betterments and improvements" to the system. Denver's pioneers had experienced the semi-arid nature of what early explorers had called "the Great American Desert" and wanted a "never failing" water supply, according to early newspaper accounts.

Only a few years after taking over the well-developed Denver Union system, the new five-member Water Board was faced with its first impending shortage of water. Population growth was rapidly transforming the City, and more water was needed. In 1924, Antero Reservoir, high in the South Park hay meadows near the headwaters of the South Platte River, was acquired to augment supply. In the late 1920s, just before onset of the Great Depression and Dust Bowl, the Water Board committed to build Eleven Mile Canyon Reservoir on the edge of South Park to assure supply. In the early 1930s, the Board made use of transmountain water rights by using the pilot bore of the famous Moffat Railroad Tunnel to send water to the drought-plagued city.

The end of World War II brought yet another population boom to the Denver area, and the Water Board again was faced with a shortage of water to meet the needs of growth. Work had been started on the Roberts Tunnel under the Continental Divide to bring water to the city from the Blue and Snake Rivers and Ten-Mile Creek by way of the North Fork of the South Platte. A continuing debate over the size of the dam to build at Dillon to divert water into the tunnel was resolved in favor of a "high dam," thus creating Dillon Reservoir in 1963. It is Denver's largest single storage facility and one of the state's premier recreational attractions.

Modern treatment plants process water before sending it to customers' taps through a network of more than 2,500 miles of mains under city and suburban streets. The Foothills Plant, completed in 1983, is considered a state-of-the-art facility capable of producing more than 280 million gallons of treated water daily to meet customer demands on hot summer days. Foothills, built at an elevation that eliminates the need to pump water into the system and its attendant cost, serves as the primary plant throughout the year. The Marston Plant, on West Quincy Avenue, and the Moffat Plant, on West 20th Avenue, help meet summer peak demands. Foothills and Marston continue to receive renovations to help assure high water quality and make it possible to meet or exceed new national drinking water quality standards. Moffat has recently undergone similar upgrades.

Generation of clean hydroelectric power has become increasingly important to Denver Water. Hydro generators at Foothills, Strontia Springs Dam, Dillon Dam and at the east portal of the Roberts Tunnel were added in the mid-1980s to augment power generated at the department's Williams Fork Dam. Another generator was added in the mid-1990s at the Hillcrest Pump Station in southeast Denver. Construction of a hydro plant at Gross Dam is expected to start in 2005.

Ground was broken in the spring of 2001 for the department's \$164 million water recycling plant near the South Platte River in Commerce City. The first phase was completed in the spring of 2004 and is now producing non-potable treated water to industrial users and irrigators through a nonpotable distribution system. Denver Metro Wastewater supplies effluent to the system, which will includes a treatment plant on the site of Denver Water's old Potable Reuse Demonstration Plant, as well as pipelines, storage tanks and three pump stations.

The recycling facility is a water resource project for Denver Water. At full capacity in 2013, it will supply over 17,000 acre-feet of recycled water a year, freeing raw water for potable treatment. The plant will augment Denver's water supply, delaying the time when it will be necessary to divert more water from the Western Slope and construct new water supply facilities.

Denver Water faces continuing challenges as a result of the ongoing drought, which has held the area in its grasp for nearly five years, and from two major forest fires, the first in 1996, and the second in the summer of 2002. A spring snowstorm in March 2003, dumped nearly two feet of snow on Denver and the Front Range, pushed snowpack to near-normal levels and reservoir levels to nearly 90 percent of capacity. However, Denver Water, and its customers, continued under water restrictions through the summer of 2003. Additionally, Denver Water has called for changes in landscaping practices to promote less use of blue grass and water-hungry turf, and more emphasis on Xeriscaping (the use of drought-tolerant pants and vegetation) in urban landscape design. Conservation remains a goal for Denver Water and all Denver water users.

The lessons learned through several years of drought will continue to drive Denver Water planning and decision making for the foreseeable future. Winter 2004/2005 snowfall in the mountain watershed areas that feed the Denver Water system will be monitored closely to determine whether levels will allow a return to non-restricted water usage by Denver Water customers in 2005.

Likewise, Denver Water continues to address the after effects of two catastrophic forest fires that have occurred in the past eight years: the 1996 Buffalo Creek fire, and the 2002 Hayman fire, both of which charred Denver Water acreage that feeds Denver Water's water supplies in the South Platte drainage.

The Buffalo Creek fire charred thousands of acres of forest land upstream from Denver Water's Strontia Springs Reservoir, resulting in rain-induced flooding and premature sedimentation in the reservoir. Subsequent dredging operations helped to remediate the effects of the fire and flooding. A rain storm following the Hayman fire resulted in sediment being washed into Cheesman Lake in summer 2002. Denver Water has undertaken a 10-year reclamation project to address the effects of the Hayman Fire, including reseeding acreage scorched by the fire, construction of sedimentation dams in gullies and across streams that feed Cheesman Lake, and the planting of 250,000 seedlings in the Cheesman burn area.

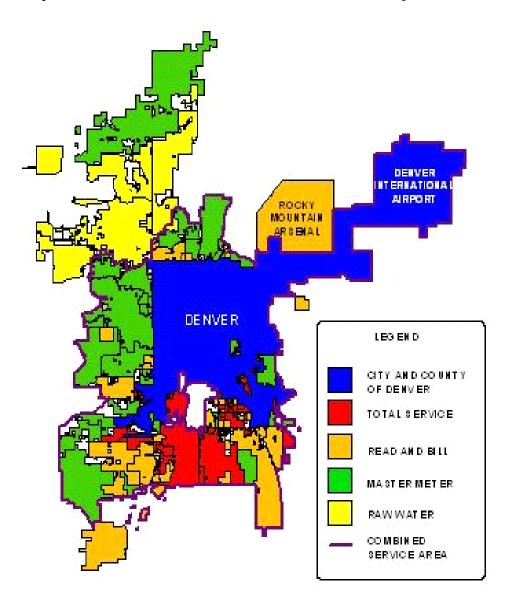
Denver Water now serves over 1 million people, more than a quarter of the state's population. It uses less than 2 percent of the average annual flow of Colorado's rivers and streams to do it. Denver Water maintains a reputation as one of the nation's finest systems due to the solid foundation provided by the framers of Denver's City Charter amendments.

#### **Drought and Financial Timeline 2002-2004**

Reservoir Content	1		Date	Description of Program							
73%	May		May 8	Voluntary Drought Response Program - targeted 10% Savings							
71%	June										
66%	July		July 1	Mandatory Restrictions, every 3 days watering,							
				3 hours, targeted 30% savings							
59%	August	2002	Aug. 1, 8, 13	Public Meetings on drought surcharges							
			August 22	Winter Surcharges approved							
54%	September		September 1	Watering hours reduced to 2, every third day							
		~	September 4	Water rate increase approved, 3.1% increase in revenue for 2003.							
			September 18	Tap Surcharge begins (20% of System Development Charge)							
50%	October		October 1	Outdoor watering prohibited							
49%	November		November 1	Winter Surcharge billing begins							
48%	December		December 18	10% System Development Charge increase approved							
46%	January										
44%	February		Feb. 10,11,18	Public Meetings on summer surcharges and drought restrictions							
43%	March										
43%	April		April 2	Summer drought surcharges approved							
			April 16	Summer drought program approved, Stage II restrictions							
46%	May		May 1	Summer Stage II restrictions begin, two days a week watering,							
				15 min. per zone up to 8 zones, no new seed or sod							
63%	June	3	June 1	Summer Surcharge billing begins							
			June 2	Relaxed restrictions, unlimited zones and allowed planting of sod							
85%	July	2003	June 25	Tap Surcharge ends, Summer Surcharge phase-out announced							
		1	July 15	Three days of water allowed each week							
85%	August		July 31	Summer Surcharge billing ends							
82%	September		Sep. 2-28	Customer telephone survey, reactions to the drought							
79%	October		October 1	Voluntary program effective, no mandatory restrictions							
			October 1	Water rate increase approved, 5.0% increase in revenue for 2004.							
76%	November		October 22	20% System Development Charge increase approved, new							
				Recycled Water customer class introduced. Effective immediately.							
	December										
73%	January										
72%	February		Feb. 4	"Spring Watch" customers asked to voluntarily not water until May							
72%	March										
72%	April		April 14	Summer drought & consumption surcharges approved							
73%	May		May 1	Summer Stage II restrictions begin, two days a week watering,							
				15 min. per zone, unlimited zones							
79%	June	4	June 9	\$8.8 million service charge increase improved effective Sept 7, 2004							
84%	July		July 1	Summer Surcharges							
			July 1	Three days of water allowed each week							
85%	August	7	August 25	Tap Surcharges end							
			August 30	Consumption Surcharges end							
81%	September		Sep. 7	Service Charge increase effective							
			Sep. 29	8% Rate increase approved for 2005							
75%	October		October 27	Board approves Residential Drought Surcharge rebates							
75%	November			Rebates							
74%	December		<u></u>	Rebates							

#### The Denver Water Service Area, Population, & Demand

Denver Water's Combined Service Area, shown below, totals approximately 338 square miles. The Combined Service Area is composed of the City and County of Denver and 69 treated water distributor contracts (see Table 1). In addition, Denver Water serves several special contracts with fixed contract amounts and two major raw water contracts.



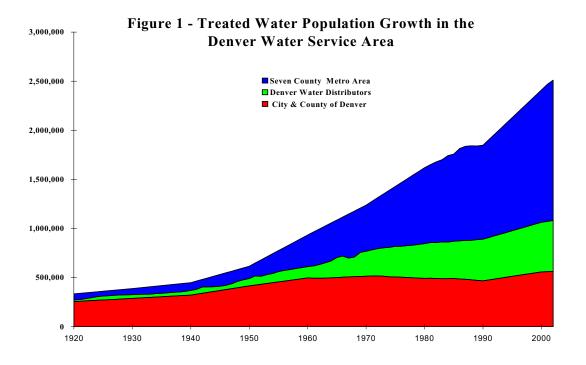
# Table 1 Denver Water Service Area Square Miles

The table below shows the total square miles served both inside and outside the City and County of Denver. The total square miles in the Inside the City service area have not changed materially since 1988 when the City and County of Denver annexed 43.3 square miles for the Denver International Airport. The old Stapleton Airport, within Denver, is being redeveloped with housing, office, and retail facilities. Although the development does not add square miles to the Denver Water service area, it will increase the number of customers we serve over the next 20 years.

Outside the city, Denver Water executes three main types of distributor contracts: Total Service, Read and Bill, and Master Meter. In Total Service districts, Denver Water operates and maintains the district's facilities, including customer billing, at a level equivalent to the service provided within the Denver City Limits. In Read and Bill districts, Denver Water reads the meters and bills the customers, but does not operate the distribution system. Master Meter districts are those in which Denver Water sells the water wholesale directly to the district. Denver Water also maintains several contracts that receive a fixed amount of water and are not included in the figures below.

<u>Denver</u>	
City and County	111.3
Denver International Airport	43.3
Subtotal	154.6
Outside Denver	
<b>Total Service Distributors</b>	40.8
Read and Bill Distributors	49.6
Master Meter Distributors	90.1
Subtotal	180.5
TOTAL	335.1

Source: 2004 Denver Water Directory of Distributors, Section 4. Figures exclude fixed special contracts and approximately 2.9 square miles presently not under contract.



#### **Our Customers**

Denver Water supplies water to about half of the population in the Denver Metropolitan Area, about 1.18 million people (see Figure 1). Since 1950, the treated water population served by Denver Water has doubled. The demand for treated water has increased from the 1950 level of 37 billion gallons to the current level of 75.2 billion gallons (see Figure 2). Currently, there are about 1,081,000 people receiving treated water and approximately 100,000 receiving raw water from Denver Water.

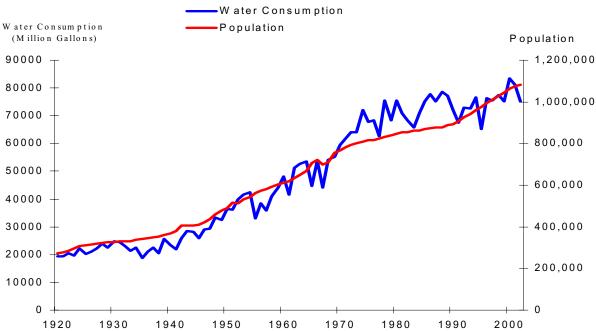
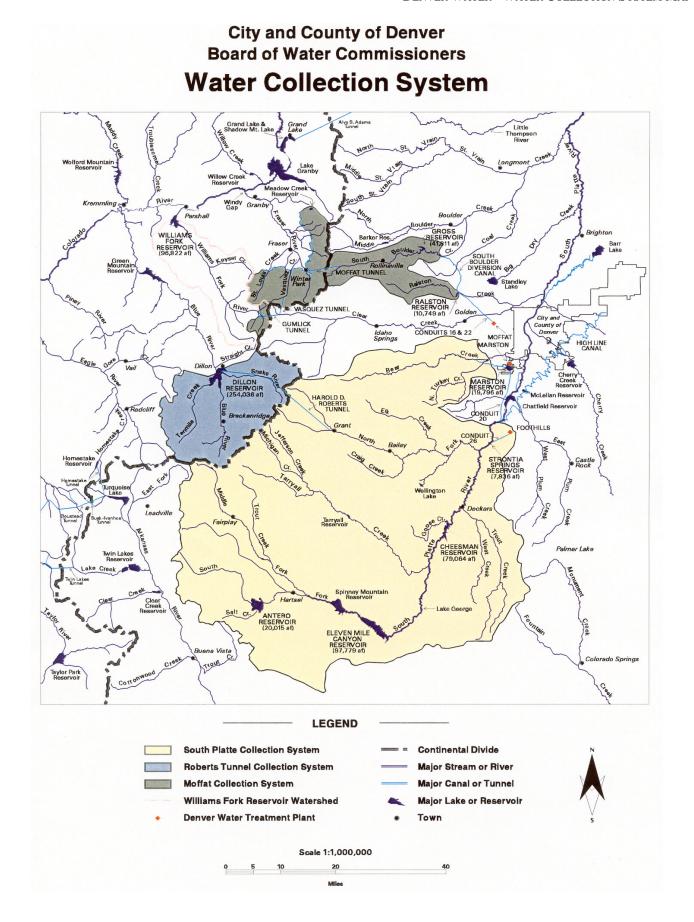


Figure 2 - Treated Water Population & Demand



STATISTICAL SUMMARY: 1998 - 2003

	<u>Note</u>	2003	2002	2001	2000	1999	1998
Financial Information:	(1)						
Operating Revenues	_ (.,	\$138,709	\$148,262	\$151,198	\$153,429	\$127,655	\$128,570
Operating Expenses		129,465	120,670	110,618	106,066	100,719	97,489
Operating Income		9,244	27,592	40,580	47,363	26,936	31,081
Income before Capital Contributions: (formerly Net Income)		5,087	23,774	38,257	27,436	21,117	21,611
Net Assets		\$1,192,244	\$1,133,120	\$1,063,981	\$985,132	\$913,928	\$855,753
Increase in Net Assets		59,124	69,139	78,849	71,204	58,175	52,237
Gross Property, Plant & Equipment		1,871,505	1,711,944	1,588,496	1,492,281	1,408,333	1,347,620
Net Property, Plant & Equipment (after depreciation)		1,449,915	1,319,641	1,220,205	1,144,868	1,082,973	1,042,918
Additions to Property, Plant & Equipment		164,363	128,479	104,721	87,493	65,806	73,095
Total Long-Term Debt	(2)	379,478	300,695	308,879	289,681	294,757	299,773
Operating Informatioin	_						
Population Served	(3)	1,081,000	1,076,000	1,052,000	1,036,000	1,012,000	996,000
Total Treated Water Consumption in Million Gallons		65,399.47	75,221.18	81,054.72	83,585.25	75,332.01	77,475.48
Average Daily Consumption in Million Gallons		179.18	206.09	222.07	228.38	206.12	212.26
Average Daily Consumption per Capita in Gallons		166	192	211	220	204	213
Maximum Daily Consumption in Million Gallons		370.05	419.20	488.71	478.19	475.66	512.53
Maximum Hour Treated Water Use Rate (MGD)	(4)	775.23	788.09	716.86	751.47	676.26	763.87
Treated Water Pumped in Million Gallons		46,030.79	51,205.33	54,161.28	47,953.92	38,149.92	33,990.21
Raw Water Storage Capacity in Acre-Feet		561,883	561,883	561,883	545,476	545,476	545,476
Replacement Reservoir Storage Capacity in Acre-Feet	t	122,432	122,432	122,432	96,822	96,822	96,822
Supply from South Platte River in Acre-Feet		144,982	58,856	129,926	133,912	210,777	190,948
Supply from Blue River/Roberts Tunnel Sys in Acre-Fe	eet	164,294	56,848	102,282	102,750	54,064	48,384
Supply from Moffat System in Acre-Feet		84,072	33,116	71,296	59,811	57,272	54,220
T		4.077.4	4.070.0	4.050.5	4.050.5	4.050.5	4 007 5
Treated Water Pumping Capacity in MGD	(4)	1,077.1	1,070.6	1,052.5	1,052.5	1,052.5	1,027.5
Raw Water Pumping Capacity in MGD	(4)	92.2	92.2	92.2	92.2	92.2	92.2
Treatment Plant Capacity in MGD Treated Water Reservoir Capacity in Million Gallons	(4)	715.0 376.65	645.0 406.45	645.0 378.45	645.0 378.75	645.0 378.75	645.0 371.75
Supply Mains in Miles (Mountain Collection System)		77.6	77.6	77.6	77.6	77.6	77.6
Supply Mains in Miles (Metropolitan Denver Area) T & D Mains in Miles (inside Denver & Total		40.7	40.7	40.7	40.7	40.7	39.2
Service Contract Distributors)		2,574.0	2,552.0	2,508.0	2,474.0	2.449.0	2,416.0
Nonpotable T & D Mains in Miles		23.5	17.6	17.3	17.3	16.4	15.6
Total Active Taps - End of Year	(3)	299,157	295,841	286,051	282,985	278,374	274,938
Fire Hydrants Operated & Maintained	/	14,648	14,380	14,173	13,991	13,681	13,136
Breaks in Mains - Denver		231	287	261	243	195	166
Service Leaks		1,117	1,034	794	907	663	779
Fire Hydrants Tested and Repaired		32,407	26,047	29,604	23,875	25,052	27,150
Total Employees(actual not authorized) (FTE's)		1,041.9	1,036.0	1,026.0	1,005.5	1,003	1,002

#### Footnotes:

<sup>(1)</sup> Amounts expressed in thousands.

<sup>(2)</sup> Current and long-term portions of bonds payable, certificates of participation, and obligations under capital lease, net of discounts, premiums and deferred losses on advance refundings.

<sup>(3)</sup> MGD = Million Gallons per Day.

<sup>(4)</sup> Supply includes effluent exchanges.

#### CUSTOMER SERVICE DATA: 1998 - 2003

	<u>Note</u>	2003	2002	2001	2000	1999	1998
Active Taps:  Beginning of Year  Activated during Year	(1)	295,841 3,510	286,051 10,053 (4)	282,985 3,273	278,374 4,871	274,938 3,732	271,338 3,919
Discontinued during Year		(194)	(263)	(207)	(260)	(296)	(319)
Net Increase during Year		3,316	9,790	3,066	4,611	3,436	3,600
Total Active Taps - End of Year	_	299,157	295,841	286,051	282,985	278,374	274,938
Active Taps	(1)						
Inside City City and County Read and Bill Total Service Master Meter Total Active Taps - End of Year		152,783 1,076 34,694 35,502 75,102 299,157	150,607 1,065 34,425 35,209 74,535 295,841	149,054 1,071 36,955 31,974 66,997 286,051	147,590 1,058 36,760 31,442 66,135 282,985	145,585 1,055 36,114 30,965 64,655 278,374	143,740 1,019 35,379 30,575 64,225 274,938
Stub-Ins on System	(2)	3,023	2,553	2,992	2,389	3,086	3,483
Fire Hydrant Use Permits		473	830	456	680	1,132	1,185
AMR (Automatic Meter Reading) Installations		71,737	56,499	30,359	298		
Turn-Offs due to Deliquent Accounts		12,776	11,586	10,293	9,045	7,920	7,992
In-Home Water Audits		12	60	98	1,155	1,092	1,751
Call Center Calls	(3)	302,488	281,339	193,395	173,016	169,399	140,284
Water Quality Calls Taste and Odor Clarity Hardness Other		90 166 14	125 15 1 1	78 75 80	220 75 1 9	148 189 69 485	530 278 70 644
New Taps Made		4,178	3,572	3,869	3,834	4,498	5,838

#### Footnotes:

<sup>(1)</sup> Service is on or has not been off for 5 consecutive years. Does not include taps sold to raw water distributors.

<sup>(2)</sup> Stub-Ins are a connection made solely to extend the service line from the main to the valve at the property line prior to the paving of the street and are not considered a tap.

<sup>(3)</sup> Call Center Calls include calls offered, plus calls handled through the IVR.

<sup>(4)</sup> Increase of 6,820 taps for Master Meter accounts within Willows Water District in 2002.

#### Denver Facts (Winter – 2002-2003)

#### Denver:

Date Founded:	1858	Universities and Colleges:	14
Date Incorporated:	1861	Damier Bublic Sahaal Envellment (200	4). 70.407
	Mayor / Council	Denver Public School Enrollment (200	•
Land Area: (square miles)	154.63	High Schools:	10
Land Area: (acres)	98,963	Middle Schools:	18
Latitude:	39° 43' N	Elementary Schools:	87
Longitude:	-104° 58' W		
Elevation: (feet above sea level)	5,280	Shopping Centers:	58
Lowest Point: (feet above sea leve			
Highest Point: (feet above sea lev		Restaurants:	700+
	, Cherry Creek		
Average Annual Rainfall: (inch		Convention Facilities (2001):	
Average Annual Snowfall: (inc		Conventions:	45
Average February Temperatu	re: 33° F	Delegate Attendance:	190,063
Average August Temperature	: 72° F	Colorado Convention Center (square	e ft) 300,000
Average Growing Season: (da	ys) 165		
Average Sunshine: (days)	300+	Denver Employment (2000):	
		Jobs in Denver:	468,392
Municipal Parks and Recreation:		Percent of Metro Area:	33.3%
Park Area (acres)	5,100	Largest Employee Sectors: Services, Government, Retail	
Parks:	301	Major Industries:	
Golf Courses (public and private)	: 15	Communications, Utilities, Transportation	
Parkways: (miles)	100	Unemployment Rate (2002):	4.5%
Recreation Centers:	29		
Swimming Pools:	19	Downtown (2001):	
Hike-Bikeways: (miles)	135	Employment:	113.000
Mountain Parks: (acres)	13,600	Total Floorspace: (square feet)	45,000,000
Playing Fields:	325	Office: (square feet)	25,000,000
Tennis Courts: (77	Lighted) 143	Retail: (square feet	2,800,000
,	- *	Hotel Rooms:	5,329
Denver Public Libraries (2001):	23		· ·
Circulation:	12,486,851	Assessed Valuation (2001): \$7	7,885,465,670

#### **Metropolitan Population Trends by City**

opontan i opu	iation ii	chas by Oity					Land Area		
Municipality	<u>Rank</u>		<u>Population</u>						
Denver	1	<u>2000</u> 554,636	<u>1990</u> 467,610	<u>1980</u> 492,686	<u>1970</u> 514,678	<u>1960</u> 493,887	<u>2000</u> 154.6		
Aurora	2	276,393	222,103	158,588	74,974	48,548	142.7		
Lakewood	3	144,126	126,481	112,860	92,743	N/A	42.5		
Arvada	4	102,153	89,235	84,576	49,844	19,242	33.0		
Westminster	5	100,940	74,625	50,211	19,512	13,850	32.9		
Centennial	6	100,677	N/A	N/A	N/A	N/A	28.0		
Boulder	7	94,673	83,312	76,685	66,870	37,718	25.4		
Thornton	8	82,384	55,031	40,343	13,326	11,353	27.2		
Longmont	9	71,093	51,555	42,942	23,209	11,489	21.9		
Littleton	10	40,340	33,685	28,631	26,466	13,670	13.9		

(Continued on next page)

#### **Denver Facts** (Winter - 2002-2003)

<u>POPULATION</u>	2000		<u>1990</u>		<u>1980</u>		(Change) 1	
Total	Number	%	Number	%	Number	%	Number	<u>%</u>
A								
Age	0.4.700	0.0	04.704	7.4	00.404	0.0	0.005	0.0
0-4 Years	34,769	6.8	34,764	7.4	33,134	6.8	3,005	8.6
5-17	83,997	15.1	68,115	14.6	77,743	15.8	15,882	23.3
18-34	173,260	31.2	141,831	30.3	178,958	36.4	31,127	22.2
35-64	197,184	35.6	158,095	33.8	140,607	28.6	39,089	24.7
65 & Over	62,426	11.3	64,805	13.9	61,923	12.6	-2,379	-3.7
Median Age	33.1		34		30.02		-9	-2.7
Household Type								
Total Households	239,235	100.0	210,952	100.0	211,004	100.0	28,283	13.4
Family	119,300	49.9	109,037	51.7	119,288	56.3	10,263	9.4
Individual	119,935	50.1	101,915	48.3	92,716	43.7	18,020	17.7
Persons Per	2.27		2.17		2.27		.1	4.6
Persons in Group Qtrs	12,719		10,850		12,554		1,869	17.2
Education (25 years a	nd Over)							
0-8 yrs completed	34,253	9.1	24,678	7.7	39,241	12.7	9,575	38.8
12 or more	74,922	78.5	75,653	79.2	93,134	74.7	-731	-1.0
College (4 or more)		34.5	93,144	29.0	76718	24.8	35,921	38.6
Labor Force (civilian)								
In Labor Force	301,434	67.6	250,743	66.9	257,720	66.0	50,691	20.2
Employed	284.340	94.3	233,602	93.2	244.838	95.0	50,738	21.7
Unemployed	17,094	3.8	17,141	4.5	12,882	5.0	-47	-0.3
Not in Labor Force	144,263	32.3	121,503	32.5	133,074	34.1	22,760	18.7
NOT III LADOI POICE	144,203	32.3	121,505	32.3	133,074	34.1	22,700	10.7
Employment Type								
Commercial	165,775	58.3	121,071	51.8	114,895	46.9	44,704	36.9
Industrial	56,387	19.8	54,875	23.5	66,859	27.3	1,512	2.7
Public/Quasi-Public	60,523	21.3	52,274	22.4	56,545	23.1	8,249	15.8

Land Use	2000	1986
	Estimated Acres (thousands)	Estimated Acres (thousands)
Total	99.0	71.2
Residential	24.1	22.8
Commercial	3.8	3.0
Industrial	4.9	4.5
TCU	26.0	7.8
Public/Semi-Public	7.1	6.0
Parks and Recreation	n 4.0	3.6
Vacant	7.1	7.5
Streets	22.0	16.0
1988 Annexation:	27,718 Acres	3

**Major Redevelopment Projects:** Gateway: 4,416 Acres Lowry: Stapleton: 1,866 Acres 4,700 Acres Central Platte Valley: 1,100 Acres

Demographic Information taken from:

Denver Facts prepared by:
Denver Community Planning and Development Agency
City and County of Denver

www://DenverGov.org/planning

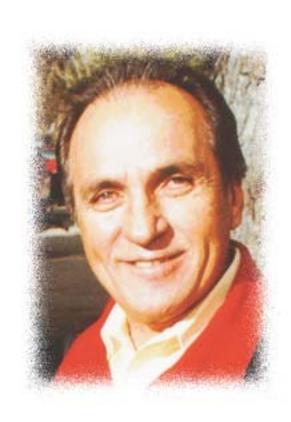


#### Ronald Duncan

Started: September 16, 1963 Office Messenger, Accounting Retired: September 10, 2004 Manager of Budgets, Finance Division

# Roy Maynes Started: May 9, 1966 Laborer-T&D, Plant Division Retired: August 4, 2004 Engineering Specialist,

**Engineering Division** 





Denver Water Department employees take a brief break while working in the Zone 1 Test Pit prior to the completion of Dillon Dam in 1963.

#### Section 2 - Receipts

#### **Receipts Summary**

Total 2005 receipts are comprised of operating receipts from the sale of water to customers, participation receipts (payments for capacity in specific facilities to serve specific groups of customers), system development charge receipts (tap fees), receipts from bond proceeds, as well as small amounts of non-operating and other receipts. Total 2005 receipts are forecast to be \$232.7 million.

#### **Operating Receipts (Sale of water to customers)**

Operating receipts are generated from sales of water to customers. They are used to pay for normal operation and maintenance, replacement of facilities, and plant additions as well as debt service. The 2005 budget of \$169.5 million reflects a revenue increase of 8.0% effective January 1, 2005 and an anticipated 11% reduction in normal annual demand as a result of a continuing emphasis on conservation in response to drought conditions during 2002, 2003 and 2004. Estimated 2004 operating receipts of \$130.8 million were \$26.6 million less than budgeted primarily due to Denver Water's restriction program in the face of the severe drought.

While approximately 58% of the 2005 billed water sales revenue is projected to be from outside the City of Denver, only 49% of customers are located outside the City. Water provided to outside City customers is billed at a higher rate than water provided to inside City customers.

Denver Water does not depend on any one customer or any group of customers for a major portion of its revenue. The 25 largest customers accounted for only 4.74% of treated water sales revenue received in 2003.

A breakdown of billed operating revenue by type of customer is shown on page 39. Billed operating revenues and number of customers inside and outside the City of Denver are shown graphically on page 40. See pages 41 - 49 for additional water rate information.

#### **Drought Surcharge**

The drought surcharge was a temporary charge adopted to encourage conservation of water through price and to act as an enforcement mechanism for other drought restrictions. By the Board's direction, the proceeds were to be used to help offset drought and fire related costs. In 2004, Drought Surcharges were in effect from May 1 through August 30. Gross Drought Surcharge receipts for 2004 were \$14.1 million. On October 27, 2004 the Board approved rebating a portion of the surcharges to Denver Water's customers. The rebates for 2004 are estimated at (\$1.6 million) resulting in net Drought Surcharge receipts of \$12.4 million. In 2005, (\$2.7 million) is budgeted for drought surcharge rebates.

#### **Non-Operating Receipts**

These receipts are obtained from payments for services that Denver Water renders such as ditch assessments for delivery of non-potable water for irrigation, main inspections, installation of taps, the calculating and mailing of sewer bills, rents on Denver Water facilities and other such services. Total non-operating receipts for 2005 are projected to be \$2.9 million, based on historical trend. A breakdown by type of receipt is shown on page 39. Estimated 2004 receipts of \$2.6 million were \$291,000 less than budgeted substantially due to lower than budgeted material sales and income from ditches and properties.

#### **Hydropower Receipts**

Hydropower receipts are generated from the sale of surplus power provided by generating facilities at the Dillon, Strontia Springs and Williams Fork dams, Roberts Tunnel, Foothills Treatment Plant and Conduit 27 at Hillcrest. Hydropower receipts for 2005 are anticipated to be \$1.8 million. This is an increase of 250% over 2004 and is a result of expected higher reservoir levels that will be available for generating power in 2005. In 2004, hydropower receipts of \$1.2 million were \$518,000 less than budgeted primarily due to lower discharge rates than expected as a result of the continuing drought.

#### **System Development Charges (SDC)**

SDCs are tap fees for new connections to the Denver Water system that represent the value of the capacity used by the new customer. System development charge receipts are projected to total \$22.6 million for 2005, based on anticipated building trends. See pages 43 - 47 for additional information. Estimated 2004 receipts of \$24.9 million were \$2.8 million more than budgeted due to higher than expected home and commercial construction.

#### **Tap Surcharge**

The tap surcharge was a temporary fee imposed during 2004 as a result of the water supply shortage. The tap surcharge was 20% of the System Development Charge. It went into effect on April 14, 2004. The proceeds were used for rebate programs related to conservation and water use efficiency programs such as rebates for low volume toilets, clothes washers and xeriscape landscaping materials. Tap surcharge receipts in 2004 were \$1.2 million.

#### **Participation Receipts**

Participation receipts for 2005 are projected to be \$2.6 million. The largest item in the 2005 budget is an expected receipt of \$1.8 million from Valley Water and Sanitation District for work on Conduits 158 and 159. See page 43 for additional information.

Estimated 2004 receipts of \$2.2 million were \$205,000 more than budgeted substantially due to higher than anticipated sales for existing facilities.

#### **Reimbursements and Grants**

Reimbursements of \$450,000 are anticipated for 2005. This includes \$150,000 from the City of Aurora for its share of Strontia Springs Reservoir operation and maintenance and \$300,000 from numerous smaller projects based on historical trend. Total 2004 reimbursements of \$3.6 million were \$3.2 million more than budgeted. This overrun was a result of unbudgeted reimbursements of \$1.4 million from CDOT for T-Rex construction work, \$1.3 million from South Adams County for work related to the gravel pit construction, and \$329,000 from Adams County for gravel pit slurry wall construction.

#### Interest on Investments

Denver Water has two investment portfolios. The first, the liquidity portfolio, is used to meet daily and annual needs for cash. The liquidity portfolio is invested in short-term, low-risk money market instruments. The other portfolio, the long-term investment portfolio, consists of funds that are not expected to be needed for several years, such as reserves against catastrophic losses, and future capital programs. The long-term investment portfolio is managed by an outside investment firm and contains investment grade corporate bonds, as well as government securities. Both portfolios are accounted for on a fair market value basis. The combined interest paid to Denver Water on both investment portfolios in 2005 is budgeted at \$4.2 million. Estimated 2004 interest receipts of \$3.2 million were \$1.1 million under budget due to lower cash balances resulting from reduced sales of water.

#### Other

These receipts consist of reimbursements for the relocation of mains and fire hydrants, proceeds from the sale of surplus assets, employee payments for health and dental insurance and minor items not included elsewhere. Other receipts are projected to be \$6.2 million in 2005. Included in this total is \$1.7 million for employee payments for health and dental insurance. Estimated 2004 receipts of \$10.8 million are \$950,000 over budget substantially due to the unbudgeted sale of surplus property.

#### **Debt Proceeds**

In 2005, Denver Water is projected to issue \$25.0 million in revenue bonds. In 2004, Denver Water took advantage of favorable market conditions and issued more debt than budgeted. Estimated bond proceeds for 2004 were \$14.3 million.

# Comparison of Receipts 2002 - 2005

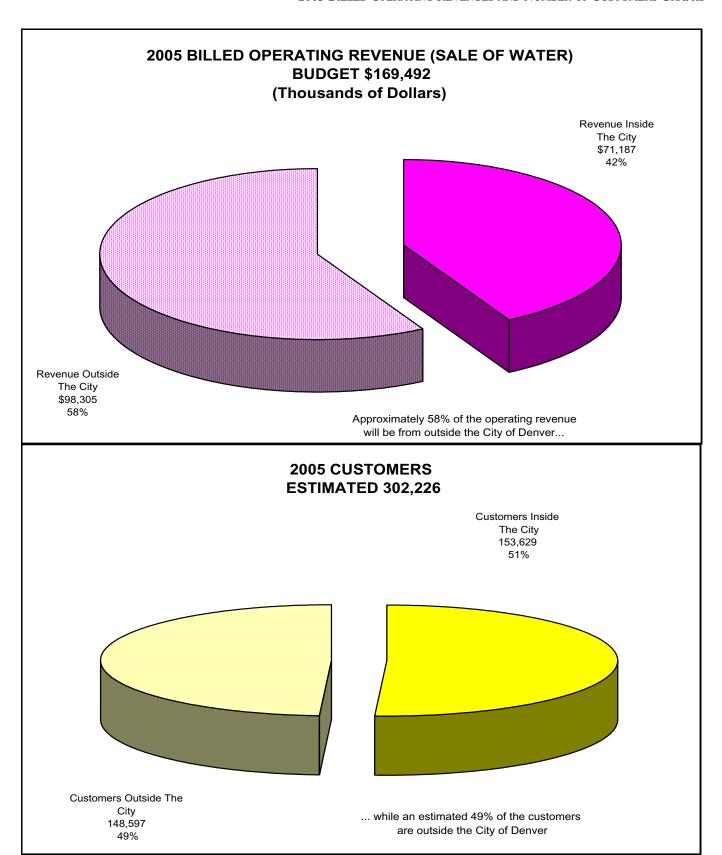
(Thousands of Dollars)

		2002 Actual		2003 Actual		2004 Budget	2004 Estimated		2005 Budget
Receipts:	-	710101	_	7101001	-			-	
Operating	\$	146,210	\$	131,038	\$	157,450	\$ 130,838	\$	169,492
Drought Surcharge		776		8,001		0	14,058		0
Drought Surcharge Rebate		0		0		0	(1,633)		(2,657)
Non-Operating		3,169		3,154		3,016	2,598		2,974
Hydropower		1,456		1,402		1,706	1,188		1,816
System Development Charges		36,644		19,649		22,034	24,917		22,586
Tap Surcharge		1,333		1,641		0	1,195		0
Participation		5,573		2,835		2,036	2,241		2,593
Reimbursements & Grants		2,052		3,420		494	3,646		450
Interest on Investments		8,459		4,879		4,297	3,164		4,234
Other	-	3,225	_	4,248	_	9,860	10,810	_	6,178
Subtotal Receipts	\$	208,897	\$	180,267	\$	200,893	\$ 193,022	\$	207,666
Debt Proceeds	-	11,393	_	132,438	_	9,000	14,300	-	25,000
Total Receipts	\$	220,290	\$_	312,705	\$_	209,893	\$ 207,322	\$	232,666

## Comparison of Operating and Non-Operating Receipts 2002 - 2005

(Thousands of Dollars)

		2002 Actual		2003 Actual		2004 Budget		2004 Estimated		2005 Budget
Operating Receipts (Water Sales)	-		-		•				-	
Billed Operating Revenue: Metered General	\$	96,398	\$	83,753	\$	105,270	\$	85,423	\$	112,664
Private Fire Protection		672		731		659		590		662
Public Authority		5,408		4,486		5,991		3,437		5,753
Sales for Resale-Treated		32,719		30,985		35,740		30,981		39,129
Other Sales of Water-Raw		435		1,077		267		312		484
Sales for Resale-Raw		5,514		5,096		5,602		2,890		6,421
Drought Permits		74		0		0		0		0
Drought Penalties		111		100		0		33		0
Other Operating Revenue		3,838		3,656		2,250		3,200		2,250
Recycled Water	_	0	_	0		859		384	_	1,539
Total Billed Operating Revenue	\$	145,169	\$	129,884	\$	156,638	\$	127,250	\$	168,902
Cash Flow Adjustment*	_	1,041	-	1,154	•	812		3,588	-	590
Total Operating Receipts	\$_	146,210	\$	131,038	\$	157,450	\$	130,838	\$_	169,492
% Receipts to Billed Revenue 100.70% 100.90% 100.50% 102.80% 100.30%  * Cash Flow Adjustment is the difference between amounts billed to customers and payments received in a year due to delays between billings and payments over the budget year.										
Non-Operating Receipts										
Merchandising, Jobbing & Contract Work	\$	1,623	\$	1,546	\$	1,523	\$	1,483	\$	1,300
Canals, Ditches and Ranches		706		670		674		539		299
Sewer Billing Charges		539		559		559		528		575
Other Non-Operating		301		379		260		48		800
Total Non-Operating Receipts	- \$_	3,169	\$	3,154	\$	3,016	\$	2,598	\$_	2,974



#### **Water Rates**

The Board of Water Commissioners is authorized by Section 10.1.9 of the Charter to set rates for water service. Since its inception, the Board has set rates at a level sufficient to service its debt and to meet its expenses of operation and maintenance. The Board has never required ad valorem taxes to meet its obligations.

Rate increases are implemented from time to time in order to offset the impact of inflation and other operating financial requirements.

#### **Water Rate Levels**

The Board continually reviews its structure of water rates, adjusting them as may be necessary to provide adequate levels of revenue. In view of the operational and capital needs of the system and the impact of inflation, the Board conducts ongoing rate studies to determine required rate levels.

On September 29, 2004, the Board adopted new rates to take effect for water bills dated on and after January 1, 2005. The new water rates are designed to increase revenue from water sales, under normal weather conditions, by 8.0%.

#### **History of Rate Increases**

The following statistics show effective dates of past actions by the Board in setting adequate rates and the proposed incremental increases in revenues.

Effective Date	Increase in Revenues
April 1, 1975	18.5%
April 16, 1976	20.0%
April 16, 1980	32.2%
February 1, 1982	12.0%
April 15, 1986	7.0%
April 15, 1987	5.0%
June 15, 1992	2.2%
June 1, 1993	4.0%
June 1, 1994	4.5%
January 1, 1995	8.4%
January 1, 1996	5.8%
January 1, 1997	4.5%
January 1, 1998	3.1%
January 4, 1999	0.5%
March 6, 2000	2.5%
January 1, 2001	2.4%
January 1, 2002	2.5%
January 1, 2003	3.1%
January 1, 2004	5.0%
September 7, 2004	5.0%
January 1, 2005	8.0%

#### **Types of Service**

Water rates are based on three types of retail metered service: Inside City, Outside City Read and Bill, and Outside City Total Service. Inside City service refers to all water users inside Denver. Outside City Read and Bill service refers to areas outside the city where Denver Water is responsible for water delivery to a distributor and for reading meters and billing customers, while the distributor is responsible for operation and maintenance of the distribution system. Outside City Total Service refers to areas outside the city where Denver Water is responsible for water delivery, reading meters and billing customers, as well as operation and maintenance of the distribution system.

A variation to the standard "Total Service" contract is the Total Service Improvement contract in which a Distributor whose system does not currently meet Denver Water Engineering Standards may request to enter into a "Total Service" Contract that includes special provisions for Denver Water to take dominion over the Distributor's existing water system and to upgrade the Distributor's water system to meet Denver Water engineering standards. A surcharge is assessed to each of the customers within the Distributor's service area to pay for the improvements.

Denver Water also provides wholesale water service to Master Meter Distributors (water districts outside the city) that own and operate their own water system, perform their own meter reading and customer billing, and purchase water on a wholesale basis for distribution to their respective retail customers. A variation of the standard Master Meter Contract was added in 2002. A Master Meter Distributor may elect to continue customer billing and collection functions within its service area but contracts with Denver Water to operate, maintain and replace its water system as needed. Currently Denver Water has no customers in this master meter class. Denver Water will bill the Distributor through master meters at a rate that reflects the cost of providing this additional service. As of December 31, 2003, wholesale water district contracts accounted for 26.49% of total treated water consumption.

#### **Residential Bimonthly Billings**

The table below indicates the estimated 2005 bimonthly billing for a single-family home with an annual consumption of 111,000 gallons per year for 3/4" metered service. It was prepared for comparison purposes only.

Average Summer

	Average Willer	Average Cammer
	Effective	Effective
Type of Service	<u>January 1, 2005</u>	<u>January 1, 2005</u>
Inside City	\$26.75	\$55.24
Outside City (Read & Bill)	32.83	70.85
Outside City (Total Service)	37.95	83.94
	<u>Month</u>	Consumption in Gallons
	January - February	10,000
	March - April	10,000
	May - June	20,000
	July - August	34,000
	September - October	25,000
	November - December	<u>12,000</u>
	Total Annual Consumption	<u>111,000</u>

Average Winter

#### **Survey of Comparative Water Bills**

This table compares Denver's annual residential water bills with those of other independent suppliers in the Denver Metropolitan area for a representative residential customer based on usage of 111,000 gallons per year. This information is for comparison purposes only.

# ANNUAL RESIDENTIAL WATER CHARGES DENVER AND OTHER WATER DISTRIBUTORS IN THE DENVER METROPOLITAN AREA 2004

		Percent of
	Annual Water	Denver Inside City
City	Service Charge	Customer Charges
Golden Outside	\$787.18	320.00%
Thornton Outside	\$551.34	224.13%
Arvada Outside	\$545.88	221.91%
Colo. Springs Outside	\$481.68	195.81%
Louisville Outside	\$425.00	172.77%
Westminster Outside	\$411.35	167.22%
Boulder Outside	\$400.26	162.71%
Golden Inside	\$393.59	160.00%
Northglenn Inside	\$392.40	159.52%
Broomfield Inside	\$390.75	158.85%
Highlands Ranch	\$372.00	151.22%
Thornton Inside	\$367.56	149.42%
Denver Outside - 2004	\$365.69	148.66%
Colorado Springs Inside	\$359.35	146.08%
Boulder Inside	\$351.54	142.91%
Aurora Inside	\$338.19	137.48%
Westminster Inside	\$335.85	136.53%
Englewood Outside	\$313.01	127.24%
Arvada Inside	\$272.94	110.96%
Denver Inside - 2004	\$245.99	100.00%
Louisville Inside	\$232.50	94.52%
Englewood Inside	\$228.41	92.85%

#### **System Development Charges and Participation Receipts**

In addition to operating revenues and bond proceeds, funds are generated from (1) system development charges ("SDCs"), which are fees received for new connections to Denver Water's system, and (2) participation receipts, which are payments for capacity in specific facilities to serve specific groups of customers.

The system development charge ("SDC"), instituted in 1973, has provided a major source of funds for capital expenditures. Since 1973, Denver Water has collected approximately \$483.1 million in SDCs. This charge applies to any applicant who is granted a license to take water through Denver Water's system or through a system deriving its supply from Denver Water. The charge is assessed upon application for a new tap and is based upon the (1) gross square footage of the single family residential lot or, (2) the number of units in a multiplex building up to 5 units or, (3) the size of the connection required. (See table on the following page.)

Since 1974, developers have been required to participate in the front-end financing of facilities necessary to meet their specific needs. Total participation receipts of \$120.8 million have been collected since inception.

On November 24, 2004, the Denver Board of Water Commissioners approved an average 11% increase for all SDCs within Denver Water's Combined Service Area.

# System Development Charges and Participation Receipts Collected (Cash Basis - net of amounts refunded) 1973 - 2004

	SDCs	Participation Receipts
1973-86	\$ 149,473,600	\$ 43,647,100
1987	8,544,400	4,561,300
1988	6,084,600	3,067,700
1989	6,251,400	4,965,200
1990	6,615,100	1,838,700
1991	7,530,400	2,330,700
1992	10,920,300	1,198,800
1993	12,181,800	1,343,600
1994	13,535,700	2,881,800
1995	15,527,600	3,927,400
1996	15,137,300	2,913,102
1997	45,058,104	3,732,524
1998	33,155,890	8,411,534
1999	24,223,691	11,963,951
2000	25,525,391	6,392,360
2001	22,186,342	7,026,906
2002	36,590,914	5,567,014
2003	19,614,948	2,831,285
2004	24,833,961	<u>2,228,550</u>
Total	\$ 482,986,091	\$ 120,829,526

# History of Increases System Development Charges (First Implemented July 1973)

Date	Incremental Increase
July 1, 1973	100.0%
April 1, 1975	50.0%
April 16, 1976	50.0%
January 1, 1980	50.0%
February 1, 1982	50.0%
January 1, 1986	7.0%
January 1, 1998	5.0%
January 4, 1999	5.0%
January 1, 2001	9.0%
April 1, 2003	9.2%
October 22, 2003	20.0%
January 30, 2005	9.0%

### Water Rate Structure (Effective January 1, 2005)

Customers are billed a meter charge plus a consumption charge as follows:

#### **RETAIL METER CHARGE:**

Meter Size	<u>Monthly</u>	<u>Bimonthly</u>
3/4 Inch	\$4.26	\$8.51
1 Inch	\$7.30	\$14.60
1 1/2 Inch	\$16.09	\$32.19
2 Inch	\$26.00	\$52.01
3 Inch	\$42.60	\$85.20
4 Inch	\$62.71	\$125.41
6 Inch	\$125.32	\$250.64
8 Inch	\$161.52	\$323.03
10 Inch	\$206.34	\$412.69
12 Inch and Above	\$291.77	\$583.53

#### RETAIL CONSUMPTION CHARGE (Bimonthly)

	Rate Per 1,000 Gallons				
Residential:		Outside City	Outside City		
Single Family	Inside City	Read and Bill	Total Service		
First 22,000 Gallons	\$ 1.71	\$ 2.28	\$ 2.76		
Next 38,000 Gallons	2.05	2.74	3.31		
All Over 60,000 Gallons	2.57	3.42	4.14		
Small Multi-Family duplex with single	<u>le meter</u>				
First 30,000 Gallons	1.52	1.98	2.25		
Over 30,000 Gallons	1.82	2.38	2.70		
All Other Retail:					
Winter	1.53	2.00	2.14		
Summer	1.84	2.40	2.57		
WHOLESALE RATE OUTSIDE CIT	Y ONLY (Master M	Meter) Rate Per 1	,000 Gallons		
All Consumption		\$ 2	20		
WHOLESALE with Maintenance (M	aster Meter Maint	enance) Rate Per 1	,000 Gallons		
All Consumption		\$ 3	.15		

## System Development Charge Schedule (Effective January 30, 2005)

#### **Single Family**

<u>Inside Denver</u> <u>Outside Denver</u>

\$1,650 + \$0.37 per Sq. Ft. \$2,300 +\$0.52 per Sq. Ft.

#### Multifamily

<u>Inside Denver</u> <u>Outside Denver</u>

\$6,200 + \$1,350 for each unit over 2 \$8,700 + \$1,900 for each unit over 2

All Other	Treated Water			
	<u>Inside Denver</u>	Outside Denver		
Tap Size (\$/Tap)				
3/4	\$4,600	\$6,450		
1	13,800	19,350		
1½	27,600	38,700		
2	41,450	58,050		
3	101,200	141,900		
4	179,400	251,550		
6	308,200	432,150		
8	414,000	580,500		
10	524,400	735,300		
12	639,400	896,550		

#### Non-Potable

	Inside Denver	Outside Denver
Tap Size (\$/Tap)		
3/4	\$2,900	\$4,050
1	8,700	12,150
1 ½	23,200	32,400
2	37,700	52,650
3	63,800	89,100
4	95,700	133,650
6	197,200	275,400
8	255,200	356,400
10	327,700	457,650
12	466,900	652,050

	Treated Water		Non-Potable Water	
Acre Foot Conversion (\$/AF) _	Inside Denver	Outside Denver	Inside Denver	Outside Denver
Inside the Combined Service Area	\$ 10,150	\$ 14,050	\$ 6,285	\$ 8,800
Outside the Combined Service Are	a	\$ 14,675		\$ 9,200

#### **Drought and Tap Surcharges**

#### TAP SURCHARGE - effective May 1, 2004 through August 30, 2004.

Tap Surcharge 20% added to SDC

#### SUMMER DROUGHT SURCHARGES - effective May 1, 2004 through August 30, 2004

**Table 1 - Single Family Residential** 

	Threshold*	
Block	(000 gallons)	Surcharge
Minimum Use	0 – 18	No Surcharge
Block 1	19 – 22	\$0.82
Block 2	23 – 28	\$1.45
Block 3	29 – 34	\$2.12
Block 4	35 – 40	\$3.11
Block 5	41 – 46	\$4.57
Block 6	47 – 52	\$6.71
Block 7	53 – 60	\$9.85
Block 8	61+	\$12.25

<sup>\*</sup>Threshold amounts are on a bimonthly basis

Table 2 - Small Multi-family

Block	Duplex	3-Plex	4-Plex	5-Plex	Surcharge
Minimum Use*	0 – 23	0 – 28	0 – 33	0 – 39	No Surcharge
Block 1	24 – 30	29 – 42	34 – 54	39 – 66	\$0.82
Block 2	31 – 36	43 – 48	55 – 60	67 – 72	\$1.45
Block 3	37 – 42	49 – 54	61 – 66	73 – 78	\$2.12
Block 4	43 – 48	55 – 60	67 – 72	79 – 84	\$3.11
Block 5	49 – 54	61 – 66	73 – 78	85 – 90	\$4.57
Block 6	55 – 60	67 – 72	79 – 84	91 – 96	\$6.71
Block 7	61 – 80	73 – 103	85 – 136	97 – 200	\$9.85
Block 8	81+	104+	137+	201+	\$12.25

<sup>\*</sup> Usage in (000) gallons

Table 3 - All Other, Master Meter, Raw Water

Level	Threshold	All Other*	Master Meter	Raw Water	Hydrant Permits
Minimum Use	70% of 2001 Consumption	No Surcharge	No Surcharge	No Surcharge	\$0.95
Block1	71 – 100% of 2001 Consumption	\$3.11	\$3.11	\$0.78	For All Consumption
Block 2	Over 100% of 2001 Consumption	\$6.71			

<sup>\*</sup>The "All Other" class includes: Commercial, Industrial, Government and Multi-family buildings over 5 units.

#### **Table 4 – Irrigation Only Accounts**

Level	All Other		High Public Use**		
50% or less	No Surcharge		70% or less	No Surcharge	
51% - 70%	\$3.11		71% - 80%	\$4.25	
71% - 100%	\$4.57		81% - 100%	\$5.56	
Over 100%	\$6.71		Over 100%	\$7.26	

<sup>\*\*</sup> Selected High Public Use customers are aggregated for all accounts.

# Section 3 Expenditures by Program

## Not pictured Thomas Kerin, Jr.

Started: September 27, 1966
Intermediate Clerk, Accounting Section
Retired: July 8, 2004
Process Control Technician,
Operations & Maintenance Division



#### Rockford Wiley

Started: July 25, 1968 Planner, Planning Division Retired: October 19, 2004 Manager of General Planning, Planning Division

#### James Warden

Started: October 21, 1968
Rodman-Survey, Engineering Div.
Retired: June 30, 2004
Construction Inspector,
Engineering Division





This Water Treatment Plant at Marston Lake was completed in 1967. Located on West Quincy between Sheridan and Wadsworth, this plant treats water from the South Platte for distribution throughout the metro service area. Although the facility is located on the south side of the metro area, it is commonly referred to as "northside" by Denver Water employees. An older plant had been located on the south side of Marston Lake, hence the distinction between "southside" and "northside" at Marston. Today the Marston Treatment Plant has the capacity to deliver 200 Million Gallons of treated water per day.

#### **Section 3 - Expenditures By Program**

#### **Program Summary**

Denver Water engages in specific activities to carry out Strategic and Integrated Resource Plan policies aimed at delivering high quality water at the lowest possible cost. These activities have been grouped into five broad categories or programs that follow the flow of water from raw water source to the customer's tap. Each program is further broken down into operation and maintenance and capital expenditure components. The programs are:

<u>Raw Water Program</u> - Provision of an adequate raw water supply. Includes collection and impounding reservoirs, collection systems, ditches and canals and raw water supply mains.

<u>Recycled Water Program</u> - Includes studies, engineering and construction of facilities for successive use of water for non-potable purposes.

<u>Water Treatment Program</u> - Treatment of water for delivery to customers. Includes treatment plants and the Water Quality Control Laboratory.

<u>Delivery Program</u> - Providing treated water to customers and distributors. Includes pumping stations, treated water reservoirs, transmission and distribution mains, fire hydrants, decentralization stations, conservation activities, meter reading and customer billing and assistance.

<u>General Plant Program</u> - Includes the West Side complex, administrative and meeting facilities, warehouses, yards and maintenance shops.

Total 2005 program budget expenditures of \$240.4 million include \$107.3 million for operation and maintenance; \$88.7 million for capital for new additions, replacements and improvements and equipment as well as \$44.4 million for debt service and related costs.

#### **Operation and Maintenance**

The Operation and Maintenance budget for 2005 is an increase of 0.9% over estimated expenditures for 2004. Average annual growth in Operation and Maintenance expenditures has been just under 4 percent for the last ten years.

Over the past several years, Denver Water has experienced several unanticipated events which have impacted operations. Security measures following September 11, 2001, several major forest fires in 2002, and the ongoing drought have all increased expenditures in the Operation and Maintenance area.

The attacks of September 11th drew attention to the vulnerability of facilities everywhere and Denver Water immediately took steps to mitigate risks to the water system. The organization spent \$3.6 million on security upgrades between 2001 and 2004. Another \$1.2 million is budgeted for 2005.

The devestating Colorado forest fires of 2002, coupled with the ongoing drought, has also had a direct impact on Denver Water operation and maintenance expenditures. The Hayman fire alone required countless staff hours and over \$3.0 million in cleanup, rehabilitation, and reseeding expenditures on the Cheesman property.

Denver Water's operation and maintenance functions continued to respond to the drought in 2004, spending \$3.3 million on conservation programs and increasing customer service resources to respond to customer questions about restrictions and surcharges. In addition, rising utility and chemcial costs challenged 2004 water treatment and delivery budgets, although other cost containment measures helped curtail overall expenditures.

If the Denver area emerges from the drought as expected, operation and maintenance staff will focus heavily on completing important maintenance projects that have been deferred or delayed over the past several years. Fifty percent of the 2005 expenditure budget is related to operation and maintenance. Although this number is higher than in the past few years, which had higher than normal capital budgets, it reflects a return to more normal operations. The 2005 budget reflects the first time appearance of dredging cost for sedimentation traps constructed on Goose and Turkey Creeks in response to the Hayman fire and rapidly rising chemical cost for water treatment.

#### **Major Capital Project Impact on Operations**

Regulations promulgated under the Safe Drinking Water Act together with normal aging of facilities built in the 1920's and 1930's have had a significant impact on the cost of water treatment operations. \$3.4 million was spent on capital upgrades and additions needed to meet Federal and State water quality and environmental safety regulations during 2004. An additional \$7.0 million is budgeted for 2005.

Redevelopment of Stapleton Airport and Lowry Air Force Base continues to have substantial impact on capital and operation and maintenance budgets. Stapleton Airport was closed in 1995 upon the opening of the new Denver International Airport. Lowry was decommissioned and the former base made available for redevelopment in September 1994. Both areas are now being developed as mixed-use communities featuring residential, office and retail facilities. Operation and maintenance costs in this area will certainly rise in the future, but are dependent on developer's timeframes.

Construction of the Gross Reservoir Hydro Unit will significantly change operations at that facility. Cartakers are preparing to undergo training and certification in hydropower operation. Maintenance on the units can be expensive, although the benefits received from selling the power generated there will help reduce our overall energy costs.

Improvements to the outlet works at Cheesman and Marston will affect the way those reservoirs are operated in 2005 and 2006. It is anticipated that impacts will be limited to reservoir level management and brief outages at Marston.

Installation of sludge drying beds at the Recycling Plant will increase operator duties at that facility as well as workload for the transmission and distribution crew, who perform sludge removal at our other three treatment plants. Since existing personnel will be utilized for this work, it is not expected to generate a large increase in costs and will yield significant savings over our current sludge disposal method (by Metro Wastewater).

The Marston Treatment Plant will be out of service for the first three months of 2005 as improvements to piping between various finished water facilities there are completed.

A number of read and bill and master meter areas are expected to convert to total service contracts over the next several years due to new water testing regulations by the Environmental Protection Agency. Estimated additional costs related to operate and maintain the new areas will be determined as they convert to total service.

#### Capital

Capital expenditures for 2004 are estimated at \$71.6 million, \$14.5 million less than budgeted. This underrun is substantially due to projects that were delayed in response to the economic realities of the drought. Among the delayed projects were the AMR project of \$5.3 million, the Customer Information System (CIS) of \$4.9 million and lower than projected costs for the completion of Phase I of the Recycled Plant of \$2.2 million.

Total 2005 budgeted capital expenditures are \$88.7 million. Major construction projects include \$6.5 million for the construction of a hydroelectric powerhouse at Gross Dam with a generating capacity of 7.6 megawatts, \$2.6 million for the construction of the Lower Chatfield Pump Station below Chatfield Dam, \$1.8 million for fininshed water improvements at Marston and \$1.1 million for the completion of the AMR project.

A list of major 2005 capital projects is shown on page 54 and 55. Additional detail information may be found on pages 56 through 68.

#### **Capital Financing**

Capital projects are financed through a mixture of participation receipts, system development charges and reimbursements for relocations of water facilities as a result of construction, debt, reserves and other sources.

Approximately \$25.2 million of 2005 capital expenditures are shared with water distributors and others in the metropolitan area through participation contracts and system development charges, see Section 2 - Receipts Forecast, page 36. For Crosswalks of the 2005 Budgeted Receipts, Related Capital and Operating Expenditures by Type of Expenditure and Drought, Rebates, Fire and Normal Operations Sources and Uses see pages 16 and 18 for additional information.

## MAJOR 2005 CAPITAL PROJECTS (Thousands of Dollars)

		2005 Capital Budget
PROGRAM: RAW WATER	_	
<b>Gross Dam Hydro-electric Project -</b> Construction of a hydroelectric powerhouse with a generating capacity of 7.6 megawatts will begin in 2005. The project will produce clean renewable power and produce income. Commercial operation is planned for 2006.	\$	6,542
<b>Marston Low Level Outlet Works</b> - Replace the 90-inch oulet from the reservoir to the 144-inch influent pipe to pretreatment facility to provide better control and allow access to the lower 6,000 acre feet of the reservoir. Construction anticipated to begin fall 2005. Completion anticipated in 2006.	\$	1,410
<b>Moffat Collection System Project</b> - The Planning Division, through its PACSM water resource model, has determined that a water supply shortage will occur at the Moffat Treatment Plant during some drought years. This water supply shortage increases as build-out of the Combined Service Area is approached. If the Moffat Treatment Plant does not have enough water during a drought, Denver will not be able to meet its customer's water supply needs from the remaining two treatment plants. Therefore, development of additional water supply for the Moffat Treatment Plant is a high priority.	\$	2,574
Gravel Pit Storage Below Metro Wastewater - This project develop storage using gravel pits downstream from Metro Sewer outfall to recapture water released to supplement Metro Reach flows in average and above average years. In dry years, the project will recapture reusable return flow when no exchange potential exists at S. Platte Intakes and release water in late spring/early summer when exchange potential does exist for new yield and augment the Recycled Water Project supply requirements.	\$	5,993
PROGRAM: RECYCLED WATER		
<b>Recycled Water Project - Sludge Drying Beds</b> - Construct sand drying beds as needed to de-water Recycling Plant sludge prior to off-site disposal. Design is scheduled to be completed in the first quarter of 2005. Construction is anticipated to be completed in late 2005.	\$	1,035
<b>Recycled Distribution System</b> - Design for Conduits 303 (Westerly Creek, Montclair to Stapleton), 306, 307 and Capitol Hill Recycled Water Distribution Mains will be completed in 2005. Construction will begin at a later date.	\$	810
PROGRAM: WATER TREATMENT		
Marston Finished Water Improvements - Modify piping between Reservoirs 3 and 4 to accommodate full plant flows. Modify outlets from reservoirs and disinfection contact basin to allow full use of reservoir volume. Modify Marston Pump Station suction channel to provide operational flexibility. Construction began in the fall of 2004. Completion date is anticipated for May, 2005.	\$	1,816
PROGRAM: DELIVERY		
Lower Chatfield Pump Station - Pump Station below Chatfield Dam to deliver all of Denver's available water in the reservoir to Conduit 20 at a maximum rate of 30 cfs. Additional pumping for .47 cfs into the Last Chance Ditch will be included for use when the reservoir level is depleted below gravity flow level. Construction to begin fall of 2005. Completion date is anticipated for fall of 2006.	\$	2,626
<b>Eleven Mile Dam - Outlet Works Renovations</b> - Replace existing discharge valves, renovate building, and add valves for low flow discharges. Construction to begin March, 2005. Completion date is anticipated for December, 2005.	\$	1,980

## MAJOR 2005 CAPITAL PROJECTS (Thousands of Dollars)

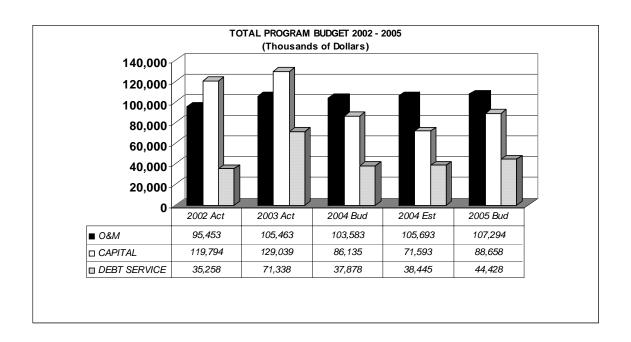
	2005 Capital Budget
PROGRAM: DELIVERY (Continued)	
<b>Automated Meter Reading -</b> Installation of equipment for implementation of automated meter reading throughout the entire Denver Water service area. The average unit costs per meter are approximately \$200. 200,000 meters 1- inch and smaller were converted by contract by December 31, 2004. Approximately 5,000 meters remain to be converted during 2005 by Denver Water employees.	\$ 1,079
<b>Large Meter AMR Program</b> - Purchase and install large meters (1-1/2 to 16 inch) to replace approximately 3,800 older meters throughout the entire Denver Water Service Area with new meters compatible with the Automatic Meter Reading Project. The program began in April, 2004 with 950 meters replaced the first year, and will be completed in late 2007.	\$ 2,400
<b>Conduit 159</b> - Approximately 8,000 ft. of new 30-inch pipe from W. 32nd Ave. and Kipling St. to W. 43rd Ave. and Moore St. Construction to begin in early 2005. Completion date is anticipated for late 2005.	\$ 1,860
<b>Stapleton - Distribution System 16" &amp; Larger -</b> Stapleton Redevelopment Area - complete installation 48,500 ft. remaining of 16-inch and 20-inch lines and associated PRVs.	\$ 1,514
Main Improvements and Replacements - Includes installation of new mains for looping and other systems improvements and replacement of deteriorated, obsolete and leaking mains under 24" in diameter. Continuous program.	\$ 3,106
PROGRAM: GENERAL PLANT	
<b>Motor Vehicles &amp; Heavy Equipment -</b> 9 new & 30 replacement vehicles; 2 new & 6 replacement heavy equipment purchases.	\$ 2,747
<b>Capitalized Computer Systems and Equipment -</b> Centralized computer hardware is budgeted at \$1.6 million, centralized software \$230,000, PCs and related equipment at \$868,000, and capitalized computer systems at \$6.7 million, including \$3.9 million for the new Customer Billing System.	\$ 9,447
ALL OTHER CAPITAL EXPENDITURES	\$ 30,338
TOTAL 2005 CAPITAL BUDGET BEFORE SUPPORTING ACTIVITIES <sup>(2)</sup>	\$ 77,277
SUPPORTING ACTIVITIES	\$ 11,381
TOTAL 2005 CAPITAL BUDGET	\$ 88,658

<sup>&</sup>lt;sup>(1)</sup>Note: There are 254 projects in the 2005 Capital Work Plan. The 16 projects shown constitute 67% of the budget for total projects before the addition of supporting activities to Capital.

#### **Program Budget Expenditures Summary**

The graph below shows the historical trend of operation and maintenance, capital and debt service expenditures summarized by program on page 57. Increases in operation and maintenance expenditures reflect the new Recycled Water Plant that began operation in the spring of 2004, increasing costs for water treatment, environmental compliance related activities and drought related response and rebate expenditures during 2002, 2003 and 2004.

The high level of capital expenditures in 2003 reflects \$53.2 million for design and construction of the Recycled Water Plant and Distribution System project, \$11.7 million for Marston Treatment Plant upgrades to comply with Federal and State regulations, \$14.5 million for Automated Meter Reading and \$3.9 million for new computer systems and hardware.



# Program Expenditures Summary 2002-2005

(Thousands of Dollars)

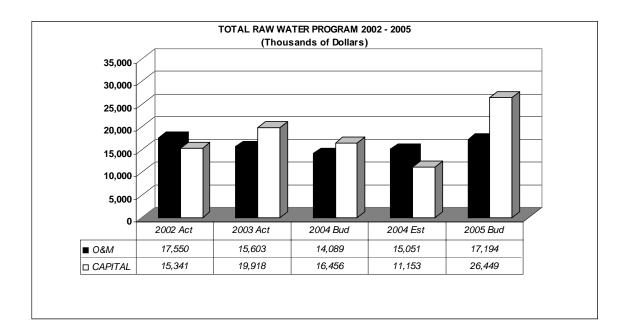
Program Elements	_	2002 Actual	_	2003 Actual		2004 Budget		2004 Estimated		2005 Budget
Operation and Maintenance Programs:										
Raw Water	\$	17,550	\$	15,603	\$	14,089	\$	15,051	\$	17,194
Recycled Water		300		1,153		4,528		3,479		4,092
Water Treatment		18,083		20,369		21,144		21,720		23,330
Delivery		44,462		54,724		50,216		52,803		47,446
General Plant	-	15,058	-	13,614	-	13,606	_	12,640	_	15,232
Total Operation &										
Maintenance Programs	\$	95,453	\$	105,463	\$	103,583	\$	105,693	\$	107,294
Less: Allocated										
Supporting Activities	\$_	45,601	\$_	52,730	\$	52,858	\$_	54,461	<b>\$</b> _	55,706
Total O & M Before										
Supporting Activities	\$_	49,852	\$_	52,733	\$	50,725	\$_	51,232	\$_	51,588
Capital Programs:										
Raw Water	\$	15,341	\$	19,918	\$	16,456	\$	11,153	\$	26,449
Recycled Water		31,467		54,689		17,010		13,025		2,406
Water Treatment		27,330		15,326		4,789		7,271		5,139
Delivery		30,724		31,187		34,718		29,180		38,104
General Plant		14,932		7,919		18,119		10,964		16,560
Historical Timing Adjustment	=		-			(4,957)	_		_	
Total Capital Programs	\$	119,794	\$	129,039	\$	86,135	\$	71,593	\$	88,658
Less: Allocated										
Supporting Activities	\$_	10,711	\$_	10,935	\$	10,860	\$_	11,158	\$_	11,381
Total Capital Before										
Supporting Activities	\$_	109,083	\$_	118,104	\$	75,275	<b>\$</b> _	60,435	<b>\$</b> _	77,277
Subtotal Capital and										
O&M Before Supporting Activities	\$	158,935	\$	170,837	\$	126,000	\$	111,667	\$	128,865
Subtotal Supporting Activities										
Allocated to Capital and O&M	\$	56,312	\$	63,665	\$	63,718	\$	65,619	\$	67,087
Debt Service, Related Costs and										
Interest on Reserve Funds	\$	35,258	\$	71,338	\$	37,878	\$	38,445	\$	44,428
Total Expenditures	\$	250,505	\$	305,840	\$	227,596	\$	215,731	\$	240,380
	=		=		=		=		_	

#### **Raw Water Program**

This program contains all of the expenditures related to the operation and maintenance of raw water facilities from source to treatment such as collection systems, storage reservoirs, intakes, wells, ditches and canals. It also includes capital expenditures related to hydropower development, water rights acquisitions, ongoing raw water development, replacements and improvements to existing facilities and related activities. Total expenditures budgeted in 2005 for the Raw Water Program are \$43.6 million, comprised of \$17.2 million for operation and maintenance and \$26.4 million for capital.

Major 2005 capital expenditures include Gross Dam Hydro-electric development at \$6.5 million, gravel pit storage development of \$5.9 million and Integrated Resource Planning projects of \$3.5 million.

The graph below shows the historical trend of these expenditures. Operation and maintenance expenditures reflect the clean up and repair work in 2002 and 2003 resulting from the Hayman fire at \$2.9 million and \$662,000 respectively.



# Program: Raw Water 2002-2005 (Thousands of Dollars)

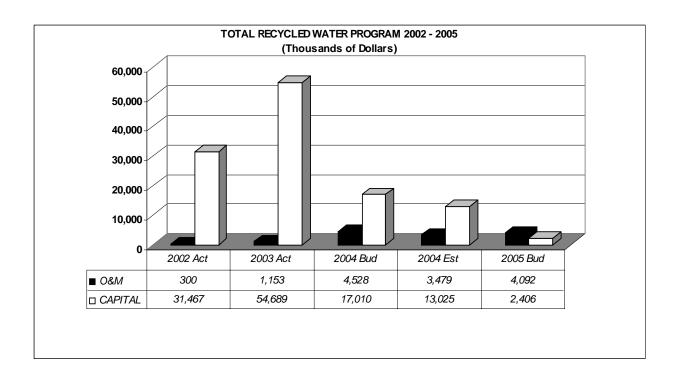
Program Elements	_	2002 Actual	_	2003 Actual		2004 Budget	<u>_I</u>	2004 Estimated		2005 Budget
Operation and Maintenance:										
Supervision and Engineering	\$	205	\$	182	\$	303	\$	174	\$	228
Storage Reservoirs		1,909		1,901		1,897		2,048		3,441
Intakes, Wells, Ditches & Canals		926		667		1,007		1,039		938
Supply Mains & Collection Systems		1,049		1,207		1,070		1,180		1,025
Power Generation		575		539		462		499		271
Resource Development, Planning & Ctrl		787		833		963		902		975
Investigation & Development		287		273		224		216		168
Source Watershed Protection		185		230		249		201		475
Hayman Fire Rehabilitation	_	2,900	-	662	_	71	_	1	_	15
Subtotal	\$	8,823	\$	6,494	\$	6,246	\$	6,260	\$	7,536
Supporting Activities	_	8,727	_	9,109	_	7,843	_	8,791	_	9,658
Total Operation &										
Maintenance	\$_	17,550	\$_	15,603	\$_	14,089	\$_	15,051	\$_	17,194
Capital:										
Water Rights	\$	711	\$	842	\$	624	\$	665	\$	562
Hydropower Development -										
Gross Dam		270		247		2,283		999		6,948
Williams fork		82		251		287		367		91
Winter Park Headquarters Relocation		1,645		2,111		109		170		0
Gravel Pit Storage		1,500		5,654		1,852		1,943		5,993
Integrated Resource Planning		1,293		1,484		3,533		1,815		3,484
Gross ResOutlet Works Gates		436		3,435		550		316		0
Marston-Constr Multi Level Outlet Works		0		0		0		0		1,410
Hayman Fire Rehabilitation		8		1,333		658		927		0
Other Raw Water Improvements		1,997		383		1,466		479		2,088
Raw Water Modifications										
and Replacements	_	5,413	_	2,274	_	2,420	_	1,452	_	3,161
Subtotal	\$	13,355	\$	18,014	\$	13,782	\$	9,133	\$	23,737
Supporting Activities	_	1,986	_	1,904	_	2,674	_	2,020	_	2,712
Total Capital	\$_	15,341	\$_	19,918	\$_	16,456	\$_	11,153	\$_	26,449
Total Raw Water Expenditures	\$_	32,891	\$_	35,521	\$_	30,545	\$_	26,204	\$_	43,643

#### **Recycled Water Program**

This program includes the operation and maintenance and capital expenditures related to the recycling of water. Total 2005 expenditures for the Recycled Water Program are budgeted at \$6.5 million, comprised of \$4.1 million for Operation and Maintenance and \$2.4 million for capital construction.

Capital expenditures are for the design, engineering and construction of a treatment plant and distribution system. These facilities will serve recycled water to customers for irrigation, cooling systems and similar purposes. Phase I design of the project began in 1998 and the plant began operating in late spring of 2004. The 2004 estimate includes \$13.4 million for completion of Phase I construction of the Recycled Plant and the distribution system. Phase II construction to serve additional customers begins in 2005, with a budget of \$2.0 million, and Phase III in 2010 with completion scheduled for 2013.

The graph below shows the Recycled Water Program from 2002 to 2005. The table on page 61 provides more detailed information.



# Program: Recycled Water 2002-2005 (Thousands of Dollars)

Program Elements	_	2002 Actual	_	2003 Actual		2004 Budget	_	2004 Estimated	_	2005 Budget
Operation and Maintenance:										
Recycled Water Plant	\$	122	\$	422	\$	2,906	\$	1,902	\$	1,885
Recycled Solids Handling		0		0		0		77		331
Recycled Water Service Lines		0		0		0		3		24
Recycled Water Mains	_	0	_	0		0	_	18	_	12
Subtotal	\$	122	\$	422	\$	2,906	\$	2,000	\$	2,252
Supporting Activities	_	178	_	731	. <u>-</u>	1,622	_	1,479	_	1,840
Total Operation &										
Maintenance	\$_	300	\$_	1,153	\$_	4,528	\$_	3,479	\$_	4,092
Capital:										
Recycled Water Distribution System	\$	1,311	\$	13,717	\$	5,654	\$	4,944	\$	810
Recycled Water Plant	_	29,308	_	39,456	_	10,652	_	8,485	_	1,237
Subtotal	\$	30,619	\$	53,173	\$	16,306	\$	13,429	\$	2,047
Supporting Activities	_	848	_	1,516	· <u>-</u>	704	-	(404)	_	359
Total Capital	\$_	31,467	\$_	54,689	\$_	17,010	\$_	13,025	\$_	2,406
Total Recycled Water Expenditures	\$_	31,767	\$_	55,842	\$	21,538	\$	16,504	\$_	6,498

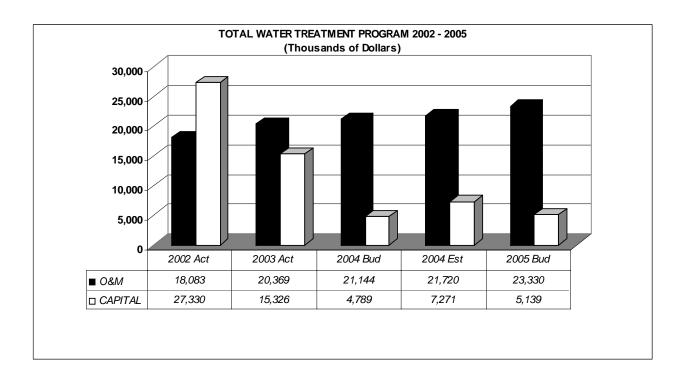
#### **Water Treatment Program**

This program contains all expenditures related to the treatment of raw water, including operation and maintenance of the Moffat, Marston and Foothills water treatment plants, solids handling facilities and the Quality Control Laboratory, as well as capital expenditures for improvements, modifications and replacements to existing treatment facilities. Total 2005 expenditures for the Water Treatment Program are budgeted at \$28.5 million, comprised of \$23.3 million for operation and maintenance and \$5.1 million for capital.

The major 2005 capital expenditure is the continued construction of Marston Finished Water Improvements of \$1.8 million. Increase in operations and maintenance in 2005 reflects higher chemicals costs.

The cost of treatment chemicals is expected to rise significantly in 2005. The reasons for the increase include higher demand for the chemicals, particularly in China, higher energy costs, higher transportation costs, and tight markets due to manufacturing facilities operating near capacity. The price of two chemicals used in the treatment process, aluminum sulfate and caustic soda, experienced a price increase of 23% and 42%, respectively, between late 2004 and early 2005. The chemical markets are extremely volatile and price fluctuations can be expected throughout 2005.

The graph below shows the historical trend of these expenditures. The high level of capital expenditures for 2002 reflects construction of disinfection facilities and other upgrades needed to meet Federal and State water quality regulations at Marston, Moffat and Foothills. The table on page 63 provides more detailed information.



# Program: Water Treatment 2002-2005 (Thousands of Dollars)

Program Elements	_	2002 Actual	_	2003 Actual	. <u>-</u>	2004 Budget		2004 Estimated	_	2005 Budget
Operation and Maintenance:	•	044	•	0.40	•	044	•	0.40	•	004
Supervision and Engineering Treatment Plants	\$	214 8,106	\$	240 8,734	\$	314	\$	243	<b>\$</b>	264
Water Quality Laboratory		1,535		1,536		8,723 1,751		9,153 1,598		9,242 1,871
Water Quality Laboratory	-	1,000	-	1,550	-	1,731		1,396	_	1,071
Subtotal	\$	9,855	\$	10,510	\$	10,788	\$	10,994	\$	11,377
Supporting Activities	_	8,228	_	9,859	· <u>-</u>	10,356		10,726	_	11,953
Total Operation &										
Maintenance	\$_	18,083	\$_	20,369	\$	21,144	\$	21,720	\$_	23,330
Capital: Marston Modifications & Improvements Foothills Modifications & Improvements Foothills Disinfection Improvements Other Treatment Improvements	\$	18,504 0 5,946 1,636	\$	11,732 0 163 2,516	\$	2,236 562 0 1,604	\$	4,823 6 26 1,621	\$	1,816 593 0 2,277
Subtotal	\$	26,086	\$	14,411	\$	4,402	\$	6,476	\$	4,686
Supporting Activities	_	1,244	_	915		387	,	795	_	453
Total Capital	\$_	27,330	\$_	15,326	\$_	4,789	\$	7,271	\$_	5,139
Total Water Treatment Expenditures	\$	45,413	\$	35,695	\$	25,933	\$	28,991	\$	28,469
<u> Едропанатов</u>	Ψ=	70,710	Ψ_	33,033	Ψ	20,000	Ψ	20,331	Ψ_	20,40

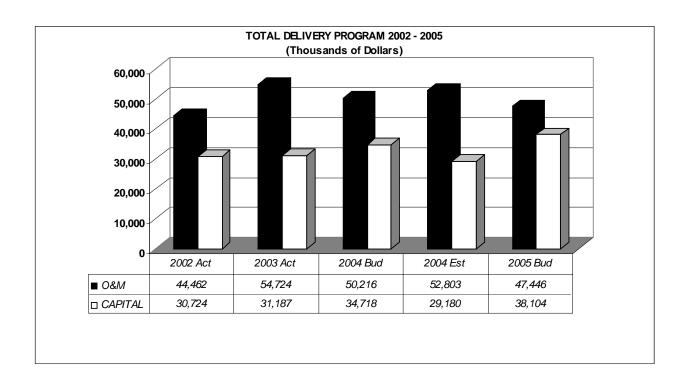
#### **Delivery Program**

This program contains all expenditures relating to the delivery of water from the treatment plants to customers, including such items as operation and maintenance of pumping facilities and treated water storage facilities, maintenance of transmission and distribution mains, service lines, fire hydrants, conservation activities, customer services, billing and collection. Total 2005 budgeted expenditures are \$85.6 million, comprised of \$47.4 million for operation and maintenance and \$38.1 million for capital. \$2.6 million of the capital expenditures will be reimbursed through participation receipts. (See page 36, Participation Receipts.)

Major 2005 capital expenditures include \$3.5 million for Automated Meter Reading and related large meter replacements, including large meter upgrades, \$5.3 million for drought related construction and \$13.6 million for transmission and distribution improvements and replacements.

Major operation and maintenance expenditures for 2005 are \$3.6 million for ongoing conservation activities, including commercial/industrial incentives and drought related activities. In total, 2002 and 2003 drought response expenditures were \$1.4 million and \$4.1 million, respectively, with a 2004 estimate of \$830,000.

The graph below shows the historical trend of these expenditures. The operation and maintenance increases for 2002 and 2003 were due to drought response measures. The table on page 65 provides more detailed information.



# Program: Delivery 2002-2005 (Thousands of Dollars)

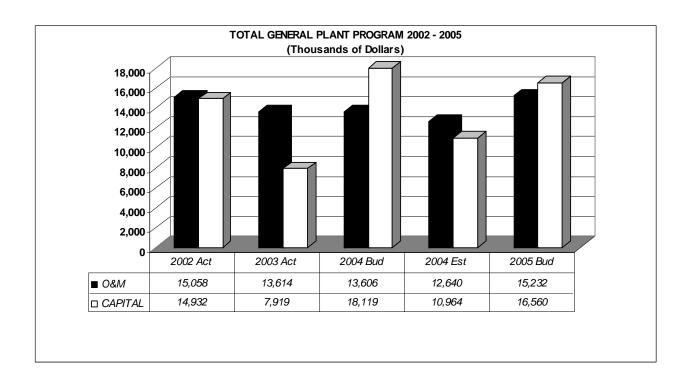
Program Elements	_	2002 Actual	_	2003 Actual		2004 Budget		2004 Estimated		2005 Budget
Operation and Maintenance:										
Supervision and Engineering	\$	2,871	\$	2,787	\$	3,050	\$	2,983	\$	2,765
Pumping and Storage		3,096	•	3,330	•	3,515	•	4,106	•	3,913
Mains		4,745		4,661		4,722		5,246		4,577
Service Lines		177		188		205		822		216
Fire Hydrants		631		569		559		645		440
Conservation:										
Ongoing Activities		1,277		999		2,762		2,239		3,562
Drought Response		1,409		4,058		555		830		50
Rebates		162		3,615		0		576		1
Customer Services		6,651		6,515		7,418		6,409		6,259
Sprinkler & Domestic Service		-,		-,		.,		2, 122		-,
Connections, Decentralization Stations	_	1,278	_	1,464	-	1,349		1,469	_	1,444
Subtotal	\$	22,297	\$	28,186	\$	24,135	\$	25,325	\$	23,227
Supporting Activities	_	22,165	_	26,538	-	26,081		27,478	_	24,219
Total Operation &										
Maintenance	\$	44,462	\$	54,724	\$	50,216	\$	52,803	\$	47,446
maints hallos	*_	. 1, 102	Υ_	01,721	Υ_	00,210	•		*_	.,,,,,
Capital:										
Colorow Reservoir	\$	3	\$	0	\$	0	\$	0	\$	0
Diesel Engines/Var Frequency Mtrs		106		0		850		200		1,930
Other Pumping & Storage		1,772		1,643		1,248		1,058		3,625
Total Pumping and Storage	\$	1,881	\$	1,643	\$	2,098	\$	1,258	\$	5,555
Conduit Construction	\$	636	\$	1,160	\$	535	\$	1,547	\$	3,522
Automated Meter Reading		11,322		14,478		10,065		5,860		3,479
Transmission & Distribution		10,514		5,689		11,859		11,736		13,582
Conservation:										
Xeriscaping & Sources for Parks		343		17		541		598		386
Drought Response		863		2,876		4,873		1,286		5,269
·	-		-	·	-			<u> </u>	_	<u> </u>
Subtotal	\$	25,559	\$	25,863	\$	29,971	\$	22,285	\$	31,793
Supporting Activities	_	5,165	_	5,324	. <u>-</u>	4,747		6,895	_	6,311
Total Capital	\$_	30,724	\$_	31,187	\$	34,718	\$	29,180	\$_	38,104
Total Delivery Expenditures	\$_	75,186	\$_	85,911	\$	84,934	\$	81,983	\$_	85,550

#### **General Plant Program**

This program contains all expenditures related to the operation and maintenance, construction and acquisition of general plant and equipment, including the Administration Building, West Side buildings and grounds, vehicles, heavy equipment, telemetering and computer-related items. Total 2005 expenditures budgeted for General Plant is \$31.8 million comprised of \$15.2 million for operation and maintenance and \$16.6 million for capital.

Major 2005 capital expenditures include \$2.7 million for purchase of motor vehicles and heavy equipment, and \$9.4 million for mainframe, personal computers, network equipment, new facilities mapping, Customer Information System (CIS) and other computer systems.

The graph below shows the historical trend of these expenditures. 2002 includes higher expenditures for the purchase of additional new computer systems and hardware. It also includes purchase of property for relocation of Wynetka Decentralization Station. 2005 includes higher expenditures related to the CIS of \$3.9 million, Facility Management of \$1.2 million and centralized hardware of \$1.6 million. 2002 operation and maintenance expenditures include \$1.8 million for security related activities resulting from September 11, 2001. The table on page 67 provides more detailed information.



#### Program: General Plant 2002-2005 (Thousands of Dollars)

Program Elements	_	2002 Actual	_	2003 Actual	_	2004 Budget	_	2004 Estimated	_	2005 Budget
Operation and Maintenance: West Side Complex	\$	1,498	¢	1,564	¢	1,802	¢	1,717	¢	2,152
Kassler Center	Ψ	1,430	Ψ	96	Ψ	82	Ψ	93	Ψ	90
Motor Vehicle & Equipment		2,385		2,486		2,362		2,722		2,185
Radio System & Telemetering		1,630		1,467		1,522		1,023		1,707
Environmental Compliance		685		535		323		306		331
Safety & Security Related (1)		1,798		346		8		141		35
Small Tools & Other Items	_	630	_	627	_	551	_	651	_	696
Subtotal	\$	8,755	\$	7,121	\$	6,650	\$	6,653	\$	7,196
Supporting Activities	_	6,303	_	6,493	_	6,956	_	5,987	_	8,036
Total Operation &										
Maintenance	\$_	15,058	\$_	13,614	\$_	13,606	\$_	12,640	\$_	15,232
0. 11.1										
Capital: West Side and Administration Complex	\$	1,952	¢	342	¢	611	¢	311	¢	691
Kassler Center	Ф	1,952	Þ	137	Ф	321	Ф	245	Ф	20
Decentralization Stations		1,882		98		195		7		292
Motor Vehicles & Heavy Equip		2,316		1,188		3,244		2,534		2,747
Computer Systems & Equipment Communications, Office &		5,592		3,880		9,570		4,691		9,447
Specialized Equipment		926		460		742		520		684
Control Instrumentation & Telemetering		100		276		220		273		155
Security Upgrades at Various Facilities		573		227		868		529		639
Other	_	0	_	35	_	0	_	2	_	339
Subtotal	\$	13,464	\$	6,643	\$	15,771	\$	9,112	\$	15,014
Supporting Activities	_	1,468	_	1,276	_	2,348	_	1,852	_	1,546
Total Capital	\$_	14,932	\$_	7,919	\$_	18,119	\$_	10,964	\$_	16,560
Total General Plant										
Expenditures	\$_	29,990	\$_	21,533	\$_	31,725	\$_	23,604	\$	31,792

<sup>&</sup>lt;sup>(1)</sup> Starting in 2003, safety and security expenditures have been charged directly to the facilities concerned

#### **Supporting Activities**

Each of the major programs contains a program element called supporting activities. This is an allocation of general and administrative expenditures that are not directly related to a particular program. These supporting activities can be characterized as indirect expenditures. A detailed listing of all of the supporting activities and their subsequent allocation to capital and operation and maintenance categories, along with further allocation to each of the major programs, is contained below.

# Program Element: Supporting Activities 2005 (Thousands of Dollars)

	Total 2005	Allocat	ted To
	Budget	O & M	Capital
Supporting Activities:			
Administration	\$ 24,054	\$ 19,973	\$ 4,081
Employee Benefits	39,406	32,721	6,685
Warehouse - Yards	804	668	136
Maintenance Shops	1,189	987	202
Gen. Liability & Other Ins.	434	360	74
Other*	1,200	997	203
Total Supporting Activities	\$ 67,087	\$ 55,706	\$ 11,381

<sup>\*</sup> Includes Stores Issue and other adjustments including refunds to customers.

### Summary of Allocation Of Supporting Activities to Programs

	Raw Water	Recycled Water	Water Treatment	Delivery	General Plant	2005 Total
Operation and Maintenance	\$ 9,658 \$	1,840	\$ 11,953 \$	\$ 24,219 \$	8,036 \$	55,706
Capital	2,712	359	453	6,311	1,546	11,381
Total	\$ 12,370 \$	2,199	\$ 12,406 \$	\$ 30,530 \$	9,582 \$	67,087



### Stephen Work

Started: June 20, 1969
Asst. Hydraulic Engineer, Planning Division
Retired: December 18, 2004
Director of Operations & Maintenance



In 1969 Denver Water Department employees worked on projects related to the construction of the Chatfield Dam and Reservoir Project, which was built in response to a catastrophic flood in June of 1965. The picture above shows workers installing a Parshall Flume at Marcy Gulch on the City Ditch.

#### **Section 4 - Expenditures by Type of Expenditure**

#### Type of Expenditure Summary

In this section, total 2005 budgeted expenditures of \$240.4 million have been placed into categories that describe what these expenditures purchase. Each category accumulates expenditures for the particular type of purchase regardless of program or whether the expenditure is for operation and maintenance or for capital.

Page 72 of this section provides summary data for expenditures by type. Pages 73 through 84 provide detailed information on the number of employees and history of divisional explanations. The following is a brief description of each of the line items appearing on page 72.

#### **Gross Payroll**

Budgeted 2005 gross payroll is \$63.9 million, an increase of \$1.7 million over 2004 estimated gross payroll. The increase reflects an average overall budgeted wage and salary increase of 2.3% that went into effect January 2005 and budgeting for 69 unfilled and 1 net new regular positions at the time the Payroll Budget was developed.

The authorized 2005 proposed regular and introductory number of employees of 1,096 is one more than authorized for 2004. This is thirteen positions less than the authorized high point of 1,109 authorized in 1991. The Manager and Staff Division is adding a new Application Developer to work on new self-service web applications, the Finance Division is adding one new position in the Treasury section and one new rate analyst to help with increased work loads. The Operation and Maintenance Division is adding one new support tech to assist in maintaining security systems, CCTV and access control, one new caretaker for Howe Haller gravel pit and one instrument tech for line monitoring and system expansion. Six meter reading positions are being deleted in the Public Affairs Division as a result of the completion of the Automated Meter Reading Project. One customer care specialist will be added for logging new customers into the AMR project. Please see page 76 for a complete list of all positions additions and deletions.

A summarized organization chart that shows reporting relationships can be found on page 77. A comparison of authorized 2004 and 2005 number of employees for regular, introductory, temporary, project, casual and part-time employees is shown on page 74.

#### **Employee Benefits**

Employee benefits for 2005 are budgeted at \$29.4 million, an increase of \$872,000 above estimated 2004 expenditures. The increase is substantially due to higher anticipated health insurance and contributions to the defined benefit retirement plan. Approximately 13% of health and 30% of dental insurance costs are expected to be paid by employees.

#### **Materials and Supplies**

Budgeted 2005 materials and supplies are \$17.9 million; an increase of \$359,000 from 2004. This small increase is largely due rising prices of materials.

#### **Outside Services**

Budgeted outside services for 2005 total \$39.4 million, including utilities and power for pumping, professional (consultant), and other services.

The 2005 budget includes \$5.4 million for utilities and pumping power a decrease of \$1.1 million from 2004. This is substantially due to a planned maintenance outage at Foothills Treatment Plant, lower utilization of the Recycled Water Plant than planned and refined modeling of future power usage.

The professional services budget of \$10.6 million is a \$1.3 million increase over 2004. This increase is largely due to work for Strontia springs sedimentation \$510,000, Marston outlet works \$260,000 and design of the Cheesman Reservoir inlet control dam \$200,000.

Other services are budgeted at \$23.4 million for 2005. This is a \$2.6 million increase over 2004 and is primarily due to delaying the purchase of a new \$2.5 million Customer Information System (CIS) until 2005. Other services include such items as computer software and maintenance, employee training, books and subscriptions, postage, equipment rental and contracted maintenance.

#### **General Equipment**

Purchases of equipment for 2005 are budgeted at \$4.1 million mostly for purchasing vehicles, heavy equipment and computer equipment. This is a \$940,000 increase over 2004 primarily due to delays in purchasing motor vehicles, heavy equipment and replacement PC's in 2004 due to drought-related expenditure reductions. In addition, \$198,000 has been added for radio equipment needed for automated workforce infrastructure.

#### **Construction Contract Payments**

This category includes payments for construction work and major material purchases under contract, purchase of water rights and acquisition of rights-of-way. These payments are budgeted at \$39.4 million for 2005; an \$11.2 million increase over 2004. The increase is primarily due to the construction of the Hydroelectric Powerhouse at Gross Dam of \$6.5 million, Chatfield Pump Station of \$2.6 million and Marston Treatment Plant finished water improvements of \$1.8 million.

#### Refunds

Refunds consist primarily of system development charge and customer account refunds. The 2005 budget projects refunds of \$464,000, a decrease of \$296,000 from 2004 estimates.

#### **Debt Service**

Debt service includes principal and interest payments for general obligation bonds, revenue bonds, certificates of participation and capital leases. Debt service for 2005 is budgeted to be \$44.0 million. See section 6, pages 89 - 95 for additional information. In the past, Denver Water relied on General Obligation Bonds. However, in 2002 the City Charter was changed to remove Denver Water's authority to issue General Obligation Bonds.

Total principal maturing and interest due in 2005 is as follows:

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
General Obligation Bonds	\$16,490,000	\$5,669,000	\$22,159,000
General Obligation Optional Redemption	545,000	0	545,000
Revenue Bonds	3,275,000	7,696,000	10,971,000
Certificates of Participation	4,800,000	2,534,000	7,334,000
Wolford Mountain Reservoir			
Capital Lease	1,090,000	1,910,000	3,000,000
Total Debt Service	<u>\$26,200,000</u>	\$17,809,000	\$44,009,000

#### Other

Other includes such items as claims, taxes collected on meter and materials sales, adjustments and expenditures not included in the above categories. The (\$4.0 million) budgeted for 2004 includes a reduction to the 2004 Capital Budget to reflect estimated Historical Timing Adjustment (HTA) of (\$4.9 million), partially offset by conservation incentives \$762,000 and insurance-related claims of \$250,000. The 2004 HTA reduction is an estimate of budget variances resulting from changes in capital construction schedules and the timing of obtaining permits and acquiring rights-of-way. It is based on a comparison of actual-to-budgeted capital expenditures over several previous years.

## Comparison of Expenditures by Type of Expenditure 2002 - 2005

(Thousands of Dollars)

	-	2002 Actual	_	2003 Actual	-	2004 Budget		2004 Estimated	_	2005 Budget
Gross Payroll	\$	59,123	\$	59,472	\$	63,680	\$	62,227	\$	63,906
Employee Benefits		22,291		27,133		26,465		28,568		29,440
Materials and Supplies		24,306		25,157		21,561		17,527		17,886
Outside Services:										
Utilities & Pumping Power	\$	4,724	\$	5,737	\$	5,351	\$	6,540	\$	5,419
Professional Services		13,231		11,695		11,716		9,362		10,637
Other Services	_	21,193	_	18,920	-	25,634		20,738	_	23,390
Subtotal Outside Services	\$	39,148	\$	36,352	\$	42,701	\$	36,640	\$	39,446
General Equipment		3,237		1,511		4,455		3,189		4,129
Construction Contract Payments		67,920		80,072		34,233		27,536		38,717
Refunds		772		537		373		760		464
Debt Service		35,194		70,853		38,146		38,146		44,009
Other	_	(1,486)	_	4,753	_	(4,018)	<u>.</u>	1,138	_	2,383
Total Expenditures	\$	250,505	\$	305,840	\$	227,596	\$	215,731	\$	240,380



Gary Aberle
Started: August 7, 1969
Accountant, Accounting Section
Retired: December, 2004
Staff Analyst,
Engineering Division

Kim Warwick
Started: September 2, 1969
Messenger, Central Services
Retired: August 13, 2004
Process Control Technician,
Operations & Maintenance Division



### Not pictured Roger Madrid

Started: December 8, 1969
Laborer-T&D, Plant Division
Retired: January 9, 2004
Equipment Coordinator-T&D
Operations & Maintenance Division



In 1969 a loaf of bread cost \$0.20, a gallon of gas cost \$0.30 and a brand new house cost all of \$40,000. If you were lucky enough to be the Manager of the Denver Water Department you took home approximately \$18,000 per year. Also in 1969, Denver Water Department employees were working with the City of Denver and Denver Urban Renewal Authority on the water-related aspects of the Skyline Urban Renewal project that would level downtown's "Skid Row", 30 blocks of the old Central Business District bounded by Speer Boulevard, Curtis Street, 20th Street and the alley between Larimer and Market Streets.

#### **Section 5 - Organization**

Denver Water is governed by the Board of Water Commissioners. The five Water Commissioners are appointed by the Mayor of Denver to staggered six-year terms. The Manager of Denver Water is appointed by the Board and is "discretionary." In general, "discretionary" means that the Manager holds "executive discretion" and serves solely at the pleasure of the Board. The Manager appoints the Division Directors, who manage the divisions. The Directors also are discretionary and report directly to the Manager.

Organizationally, Denver Water is divided into seven divisions, which are then further defined into sections. The 2005 budgeted Table of Organizations shown on page 74. Divisional summaries of the number of employees and expenditures by division are shown on pages 78 through 84.

## Regular and Introductory Employees (As of December 31, 2002 – 2005)

Division	2002	2003	2004	2004	2005
	<u>Actual</u>	<u>Actual</u>	<u>Budget</u>	<u>Actual</u>	<u>Budget*</u>
Manager & Staff Public Affairs Legal Finance Engineering Planning Operations & Maintenance	97.8	102.6	106.5	101.6	107.5
	149.3	147.8	147.8	143.6	143.0
	13.5	12.5	13.6	13.5	13.6
	55.0	55.0	57.0	54.0	59.0
	134.0	129.6	135.0	130.0	135.0
	42.4	42.4	45.1	41.4	45.1
Totals  Authorized	1,036.0	1,041.9	1,095.0	1,037.8	1,096.0
	1,062.4	1,087.1	1,095.0	1,095.0	1,096.0
Difference	-26.4	-45.2	0	-57.2	0

<sup>\*</sup>Total budgeted table of organization. Actual year-end regular employees estimated to be 1043.

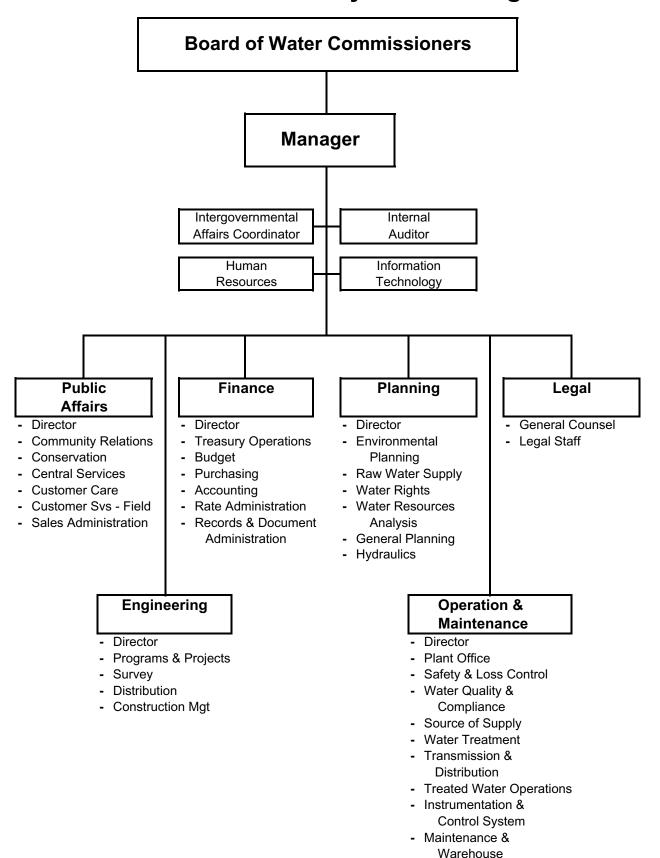
2005 Budgeted Table of Organization (Comparison with 2004)								
	Regul	ar-Introdu	ctory Staf	f	Tempo		2005 Project S	taff
Di di da (Ocalica)	12/31/04	2004	2005	Change in	Temp-	Proj	Casual Part-	Budget
Divisions/Sections	Actual	Т. О.	T. O.	T.O.s	orary	Temp	Time	Total
Manager & Staff Division	44.0	44.0	44.0	0.0				
Manager and Staff	14.0	14.0	14.0	0.0	-	- 0.0	-	-
Information Technology	59.8	64.0	65.0 28.5	1.0	-	8.0	-	8.0
Human Resources Total Manager & Staff	27.8	28.5	26.5	0.0		0.6		0.6
Division	101.6	106.5	107.5	1.0	0.0	8.6	0.0	8.6
Public Affairs Division								
Director of Public Affairs	7.0	6.0	7.0	1.0	-	-	-	-
Community Relations	4.0	5.2	4.4	(8.0)	-	-	1.0	1.0
Conservation	12.0	12.0	12.0	0.0	-	-	-	-
Central Services	3.0	3.0	3.0	0.0	-	-	-	-
Customer Care	36.0	35.0	36.0	1.0	4.0	-	-	4.0
Customer Services - Field	71.0	75.0	69.0	(6.0)	-	4.0	-	4.0
Sales Administration	10.6	11.6	11.6	0.0		1.0		1.0
Total Public Affairs	440.0		4 4 0 0	(4.0)	4.0		4.0	40.0
Division	143.6	147.8	143.0	(4.8)	4.0	5.0	1.0	10.0
Legal Division	13.5	13.6	13.6	0.0	-	-	2.0	2.0
Finance Division								
Director of Finance	9.0	9.0	9.0	0.0	-	-	-	-
Treasury Operations	5.0	5.0	6.0	1.0	-	-	-	-
Budget	4.0	5.0	5.0	0.0	-	-	-	-
Purchasing	9.0	8.0	8.0	0.0	-	-	-	-
Accounting	19.0	20.0	20.0	0.0		-	-	-
Rate Administration	1.0	2.0	3.0	1.0	-	-	-	-
Records & Document Admin.	7.0	8.0	8.0	0.0		1.0		1.0
Total Finance Division	54.0	57.0	59.0	2.0	0.0	1.0	0.0	1.0
Engineering Division								
Administration	9.0	9.0	9.0	0.0	_	_	_	_
Programs & Projects	37.0	37.0	38.0	1.0	_	_	4.0	4.0
Survey	24.0	26.0	26.0	0.0	2.0	_	4.0	6.0
Distribution	38.0	40.0	40.0	0.0	_	2.0	7.0	9.0
Construction Management	22.0	23.0	22.0	(1.0)			2.0	2.0
Total Engineering								
Division	130.0	135.0	135.0	0.0	2.0	2.0	17.0	21.0

	2005 Budgeted Table of Organization (Comparison with 2004)							
	Regi	ular-Intro	ductory St	aff	Tempo	rary and	2005 Project S	taff
Divisions/Sections	12/30/04 Actual	2004 T. O.	2005 T. O.	Change in T.O.s	Temp- orary	Proj Temp	Casual Part- Time	Budget Total
Planning Division						•		
Director of Planning	2.0	4.0	4.0	0.0	_	_	_	-
Environmental Planning	5.6	4.6	4.6	0.0	_	_	_	_
Raw Water Supply	6.0	6.0	6.0	0.0	_	_	1.0	1.0
Water Rights	7.0	7.5	7.5	0.0	_	_	_	_
Water Resources Analysis	10.8	11.0	11.0	0.0	_	-	_	_
General Planning	3.0	5.0	5.0	0.0	_	-	_	_
Hydraulics	7.0	7.0	7.0	0.0			5.0	5.0
Total Planning Division	41.4	45.1	45.1	0.0	0.0	0.0	6.0	6.0
Operations &								
Maintenance Division								
Plant Office	4.0	5.0	4.0	(1.0)	-	-	-	_
Water Quality & Compliance	31.8	32.0	31.8	(0.2)	2.0	-	-	2.0
Safety and Loss Control	15.0	12.0	13.0	1.0	-	-	-	-
Source of Supply	56.0	62.0	63.0	1.0	24.0	2.0	-	26.0
Water Treatment	83.0	87.0	88.0	1.0	-	-	1.0	1.0
Transmission & Distribution	157.0	175.0	175.0	0.0	-	-	6.0	6.0
Water Control	57.0	62.0	62.0	0.0	-	-	5.0	5.0
Instrumentation & Ctrl Systems	19.0	21.0	22.0	1.0	-	-	-	-
Maintenance and Warehouse	131.0	134.0	134.0	0.0			8.0	8.0
Total Operations &								
Maintenance Division	553.8	590.0	592.8	2.8	26.0	2.0	20.0	48.0
Total All Divisions	1,037.8	1,095.0	1,096.0	1.0	32.0	18.6	46.0	96.6

### Budgeted Table of Organization Changes

2004-2005	Net
Divisions/Positions	Change
Manager & Staff Division	
Application Developer III, IT	1.0
	<u>1.0</u> 1.0
Public Affairs Division	
Increase part-time position from .6 to .8	0.2
Cust. Care Spec II (new). Cust. Care	1.0
Meter Readers (deleted due to AMR)	<u>-6.0</u>
	-4.8
Finance Division	
Finance Analyst (new) Treasury Op	1.0
Rate Analayst (new) Rates	<u>1.0</u> 2.0
	2.0
Engineering Division	
Design Drafter I, Programs & Projects (new)	1.0
Constr. Inspector II, Constr. Mgmt (delete)	<u>-1.0</u>
Operations and Maintenance Division	0.0
Operations and Maintenance Division	-0.2
One FT to .75 P/T Admin. Asst., WQ Lab Support Tech (new), Safety and Loss Cont.	-0.2 1.0
Caretaker I (new), Ditches & Canals	1.0
Process Control Spec. (new), Instrumentation and Control	1.0
	2.8
Total Position Changes	<u>1.0</u>

### 2005 Denver Water Summary Table of Organization



#### **Manager and Staff Division Summary**

#### **Activities**

This Division includes the Manager as Chief Executive for Denver Water. The Manager is also Secretary to the Board of Water Commissioners. The division directors report directly to the Manager. This Division also includes the Human Resources Section, Information Technology Section, and the Internal Auditing function. Human Resources is responsible for administering all aspects of Denver Water's employment, training, and compensation systems. Human Resources maintains Denver Water's Personnel Policies, is custodian of personnel records, administers the employee benefits, risk management, health promotion, disability management, and workers compensation programs. Human Resources is also responsible for recruitment and hiring, training, investigating employee complaints and administering programs related to small and disadvantaged businesses. The Information Technology Section is responsible for acquisition and management of electronic communications, information systems, computers and computer networks, PCs and software and telephone systems,

#### **Key 2005 Objectives**

- 1. Reform the Board meeting procedures to focus more clearly on policy matters.
- 2. Recover from the drought; distill the lessons learned about water supply and conservation in the past three years.
- 3. Monitor the financial situation at Denver Water carefully, with an eye toward full restoration of fiscal health following the revenue decline caused by the drought.
- 4. Make substantial progress in the development of the new Customer Information and Billing System, leading toward consideration of monthly billing and more sophisticated rate methodology.
- Apply new technologies to improve the geographic information system, implement a mobile workforce automation project, and complete the automated meter reading project which is necessary before monthly billing can be done, or new rate methodologies established.
- 6. Insure that the human resources of Denver Water are hired, managed, developed and retained in a manner that contributes to the effective and efficient operations of the Department and that reflects the diversity of the community in which we live.
- 7. Maintain all information systems so that information is provided in a timely and accurate fashion.
- 8. Install and maintain information system hardware and software for financial, geographic information, facility management, accounting, warehousing and purchasing, and customer information systems, and insure that such systems are adequately maintained and upgraded as necessary.
- 9. Connect remote sites to the central data systems.
- 10. Maintain the computer and network infrastructure to support the growing volume of data traffic.
- 11. Maintain and enhance computer security as needed to meet Denver Water's business objectives.
- 12. Improve operational efficiencies and reduce costs by deploying technology solutions.
- 13. Operate a print and graphics shop.

#### Regular & Introductory Employees (At End of Year)\*

	2002	2003	2004	2004	2005
Section	Actual	Actual	Budget	Actual	Budget
Manager and Staff**	13.0	13.0	14.0	14.0	14.0
Human Resources	27.0	27.0	28.5	27.8	28.5
Information Technology***	57.8	64.0	64.0	59.8	65.0
Total	97.8	104.0	106.5	101.6	107.5

<sup>\* 2005</sup> Budget has not been reduced by expected vacancy savings

		2002	2003	2004	2004	2005
		Actual	Actual	Budget	Estimated	Budget
Payroll	\$	8,223	8,750	9,854	9,687	10,070
Employee Benefits		10,724	12,938	12,910	14,085	14,826
Materials		1,226	1,181	896	915	1,132
Services		11,143	8,611	13,546	8,598	13,022
Equipment		486	192	869	476	1,078
Refunds		1	1	1	1	1
Other	_	20	7	60	29	50
Total	\$	31,823	31,680	38,136	33,791	40,179

<sup>\*\*</sup> Intergovernmental Affairs Coordinator position transferred to Manager and Staff in 2004.

<sup>\*\*\*</sup> The Print Shop section (4.0 positions) was transferred from Public Affairs to the IT section in 2003.

#### **Public Affairs Division Summary**

#### **Activities**

The Public Affairs Division facilitates relationships with persons and entities outside of Denver Water. In that capacity, it responds to customer concerns, manages customer relations, and maintains cooperative relationships with Denver City administration and governmental agencies whose sphere of operation impact Denver Water. Public Affairs coordinates the administration of distributor contracts and facilitates Denver Water's relations with its various publics. Responsibilities also include customer billing, meter reading and maintenance, water conservation, plan review, and public relations activities.

#### **Key 2005 Objectives**

- 1. Update conservation data and presentations.
- 2. Purchase and implement a new Customer Information System (CIS) and bill print program.
- 3. Complete radio drive-by automation of meters for residential and commercial customers.
- 4. Manage customer consumption if the current drought continues.

#### Regular & Introductory Employees (At End of Year)\*

	2002	2003	2004	2004	2005
Section	Actual	Actual	Budget	Actual	Budget
Director of Public Affairs**	7.0	7.0	6.0	7.0	7.0
Community Relations	4.7	5.2	5.2	4.0	4.4
Conservation	10.0	12.0	12.0	12.0	12.0
Customer Care/Customer Services	111.0	110.0	110.0	107.0	105.0
Sales Administration**	13.6	13.6	14.6	13.6	14.6
Print Shop***	3.0	N/A	N/A	N/A	N/A
Total	149.3	147.8	147.8	143.6	143.0

<sup>\* 2005</sup> Budget has not been reduced by expected vacancy savings

		2002	2003	2004	2004	2005
		Actual	Actual	Budget	Estimated	Budget
Payroll	\$	6,506	6,861	6,804	6,960	6,872
Materials		10,552	13,033	9,028	4,322	2,945
Services		4,383	5,452	5,515	4,552	3,501
Equipment		0	0	0	0	32
Contract Payments		0	50	0	0	
Refunds		195	374	270	547	361
Other*		148	3,685	824	1,165	2,053
Total	<b>\$</b> —	21,784	29,455	22,441	17,546	15,764

<sup>\*</sup>Increase reflects rebate program for water conservation and water use efficiency programs.

<sup>\*\*</sup> Intergovernmental Affairs Coordinator position transferred to Manager and Staff Division in 2004.

<sup>\*\*\*</sup> The Print Shop section with four positions was transferred to the Manager & Staff Division, Information Technology section in January, 2003.

#### **Legal Division Summary**

#### Activities

The Legal Division represents and gives legal advice to the Board of Water Commissioners, the Manager and the various Divisions of Denver Water and handles all of its litigation. The types of litigation include water rights cases and diligence proceedings, administrative proceedings before State and Federal agencies, contract, civil rights and negligence cases, property suits and condemnations, and actions to recover Board charges and damages for injury to Board property and rights. In addition, the Legal Division represents Board interests in administrative hearings and appeals within Denver Water relating to personnel problems and customer complaints, reviews and advises upon matters of pending legislation, and prepares and reviews contract documents of all kinds.

#### **Key 2005 Objectives**

- Respond to evolving challenges to the yield and operating flexibility of Denver Water's system, including challenges presented by various permitting processes and water court proceedings.
- 2. Improve personnel-related practices and policies, including benefits, risk management, corrective action and medical issues.
- 3. Provide representation to Denver Water in litigation involving construction disputes, tort claims, water rights, employment, Board policy decisions and other issues.
- 4. Provide legal interpretation, drafting and negotiations services as needed to help Denver Water manage its operations under continuously changing conditions.

#### Regular & Introductory Employees (At End of Year)

	2002	2003	2004	2004	2005
Section	Actual	Actual	Budget	Actual	Budget
Legal	13.5	12.5	13.6	13.5	13.6
Total	13.5	12.5	13.6	13.5	13.6

\*2005 Budget has not been reduced by expected vacancy savings

	2002	2003	2004	2004	2005
	Actual	Actual	Budget	Estimated	Budget
Payroll	\$ 1,035	1,015	1,076	1,001	1,060
Materials	2	3	5	9	6
Services	277	264	362	262	445
Other	277	243	400	575	500
Total	\$ 1,591	1,525	1,843	1,847	2,011

#### **Finance Division Summary**

#### **Activities**

The Finance Division is responsible for the planning, management and budgeting of Denver Water's financial resources, including acting as the disbursing authority for the Manager and custodian of the Department's documents and records. Major functional areas include accounting, treasury, long range financial planning, annual budgeting, water rate administration, purchasing and records and document management.

#### **Key 2005 Objectives**

- Maintain financial stability and financial preparedness, including the development of long term financial plans, and ongoing and frequent financial or management reports.
- 2. Work with all divisions to control expense levels, and prepare financially for the potential continuation of drought conditions.
- 3. Perform annual development and review of financial plan, rates, other fees, financial statements, and annual budget.
- 4. Plan for the transition to a new Customer Information System, monthly billing, and analysis of new rate design alternatives.
- 5. Advise the Board, as trustee of the Department's retirement plan, on the plan's performance issues .
- 6. Prudently manage the Board's outstanding debt assuring that all bond covenants are met.
- Provide high-quality records management services to Board in order to effectively leverage its information assets.

#### Regular & Introductory Employees (At End of Year)

	2002	2003	2004	2004	2005
Section	Actual	Actual	Budget	Actual	Budget
Director	9.0	9.0	9.0	9.0	9.0
Treasury Operations	5.0	5.0	5.0	5.0	6.0
Budget Section	4.0	4.0	5.0	4.0	5.0
Accounting	19.0	19.0	20.0	19.0	20.0
Rate Administration	2.0	2.0	2.0	2.0	3.0
Records & Document Admin.	8.0	8.0	8.0	6.0	8.0
Purchasing	8.0	8.0	8.0	9.0	8.0
	<del></del>				
Total	55.0	55.0	57.0	54.0	59.0

		2002	2003	2004	2004	2005
		Actual	Actual	Budget	Estimated	Budget
Payroll	\$	2,946	3,100	3,212	3,152	3,329
Employee Benefits		11,567	14,195	13,555	14,483	14,614
Materials		510	404	574	389	573
Services		586	1,541	800	1,174	1,155
Equipment		2	0	0	0	
Refunds		77	142	102	176	102
Debt Service		35,194	70,853	38,146	38,146	44,009
Other		(50)	(527)	(345)	(580)	(219)
Total	<u> </u>	50,832	89,708	56,044	56,940	63,563

#### **Engineering Division Summary**

#### **Activities**

The Engineering Division is responsible for the design, construction, survey and related engineering aspects of physical additions, improvements and maintenance for the raw and treated water system. Engineering disciplines and related functions include civil, structural, construction, administration, electrical, mechanical, hydraulic, and dam safety. Recreation and property management activities are also assigned to Engineering. These include easement acquisitions and licensing activities for properties. Distribution system functions are included within Engineering Division responsibilities.

#### **Key 2005 Objectives**

- Complete a large percentage of maintenance and upgrade projects in the 2005 Work Plan. These projects are necessary due to the focus in the last several years on large capital construction projects.
- 2. Continue progress toward purchase or sale of property important to Denver Water, including Fehringer Ranch in Jefferson County.

#### Regular & Introductory Employees (At End of Year)

	2002	2003	2004	2004	2005
Section	Actual	Actual	Budget	Actual	Budget
Director of Engineering	9.0	8.6	9.0	9.0	9.0
Programs and Projects	37.0	37.0	37.0	37.0	38.0
Survey	26.0	25.0	26.0	24.0	26.0
Distribution	39.0	37.0	40.0	38.0	40.0
Construction Management	23.0	22.0	23.0	22.0	22.0
Total	134.0	129.6	135.0	130.0	135.0

<sup>\*2005</sup> Budget has not been reduced by expected vacancy savings

	2002	2003	2004	2004	2005
	Actual	Actual	Budget	Estimated	Budget
Payroll	\$ 8,148	8,320	8,477	8,254	8,532
Materials	370	344	682	436	736
Services	6,704	5,312	4,346	4,232	4,061
Contract Payments	66,403	79,765	34,137	27,517	38,621
Equipment	101	5	0	6	75
Refunds	24	19	0	23	0
Total	\$ 81,750	93,765	47,642	40,468	52,025

#### **Planning Division Summary**

#### Activities

The Planning Division is responsible for identifying and integrating the future water and facilities needs and resources of Denver Water and determining and protecting options to meet those needs and resources. Planning is also responsible for coordinating outside pertinent activities with local, state, and federal agencies. It accomplishes this by providing demographic projections and raw and treated water consumption forecasts. It also develops long and short-range plans for facility development. Additionally, it determines the water supply available, plans and controls daily operation of the water supply, plans for the construction of treated water transmission distribution, pumping and storage facilities, performs environmental planning, and plays a key role in the development, protection, and management of water rights.

#### **Key 2005 Objectives**

- 1. Work with all Denver Water Divisions to address issues and problems occasioned by the possibilty of a continued drought, including forecasting the severity of the drought.
- Continue efforts to resolve the reliability and vulnerability problems on the north-end by completion of the Environmental Impact Statement (EIS) with the U.S. Army Corps of Engineers for the Moffat Collection System Project.
- 3. Plan for the treated water distribution system expansion.
- 4. Preserve Denver Water's ability to use its water resources by successfully addressing endangered species and other environmental concerns.
- 5. Preserve, protect, develop and utilize Denver's water resources to adequately serve our customers.

#### Regular & Introductory Employees (At End of Year)\*

	2002	2003	2004	2004	2005
Section	Actual	Actual	Budget	Actual	Budget
Director of Planning	3.0	3.0	4.0	2.0	4.0
Environmental Planning	4.6	4.6	4.6	5.6	4.6
Raw Water Supply	6.0	6.0	6.0	6.0	6.0
Water Rights	7.0	7.0	7.5	7.0	7.5
Raw Water Planning	10.8	10.8	11.0	10.8	11.0
General Planning	4.0	4.0	5.0	3.0	5.0
Hydraulics	7.0	7.0	7.0	7.0	7.0
Total	42.4	42.4	45.1	41.4	45.1
TUlai	42.4	42.4	40. I	41.4	45.1

<sup>\*2005</sup> Budget has not been reduced by expected vacancy savings

	2002	2003	2004	2004	2005
	Actual	Actual	Budget	Estimated	Budget
Payroll	\$ 2,964	3,042	3,231	3,111	3,246
Materials	49	35	59	71	51
Services	1,590	3,179	4,433	2,417	4,094
Contract Payments	1,517	230	96	18	96
Equipment	6	0	0	0	0
Refunds	474	0	0	0	0
Other	0	0	0	0	0
Total	\$ 6,600	6,486	7,819	5,617	7,487

#### **Operations and Maintenance Division Summary**

#### **Activities**

The Operations and Maintenance Division is responsible for operating and maintaining the physical plant of Denver Water. It establishes operating criteria for the proper operation of all plant facilities and maintains the Denver Water system to the satisfaction of outside agencies. Major functions include: monitoring and developing water quality control methods, diversion and storage of raw water supply; maintenance and operation of physical plant at various dams, reservoirs, hydro-turbines and water treatment plants; construction, maintenance and repair of transmission and distribution piping, appurtenances, and facilities; operation of the distribution system and supervision of process control; and coordination of Denver Water Safety and Security, Environmental Compliance Programs and Warehousing functions.

#### **Key 2005 Objectives**

- 1. Increase distribution system reliability.
- 2. Continue security improvements and refinements.
- 4. Improve reliability of Water Treatment Plants and optimize performance.
- 5. Continue staff training and development.

#### Regular & Introductory Employees (At End of Year)\*

Regular & Introductory Employees (At	Liiu di Teai <i>j</i>				
	2002	2003	2004	2004	2005
Section	Actual	Actual	Budget	Actual	Budget
Plant Office	5.0	4.0	5.0	4.0	4.0
Water Quality and Compliance	30.0	31.0	32.0	31.8	31.8
Safety & Loss Control	12.0	12.0	12.0	15.0	13.0
Source of Supply	60.0	59.0	62.0	56.0	63.0
Water Treatment	69.0	79.0	87.0	83.0	88.0
Water Control	58.0	59.0	62.0	57.0	62.0
Transmission & Distribution	163.0	158.0	175.0	157.0	175.0
Instrumentation & Control	20.0	21.0	21.0	19.0	22.0
Maintenance and Warehouse	127.0	129.0	134.0	131.0	134.0
Total	544.0	552.0	590.0	553.8	592.8

<sup>\*2005</sup> Budget has not been reduced by expected vacancy savings

	2002	2003	2004	2004	2005
	Actual	Actual	Budget	Estimated	Budget
Payroll	\$ 29,300	28,384	31,026	30,063	31,396
Materials	11,818	10,619	10,799	11,476	11,566
Services	14,466	11,993	13,699	15,406	13,166
Contract Payments	0	27	0	0	0
Equipment	2,642	1,310	3,586	2,706	2,944
Refunds	1	1	0	1	0
Other	4	0	0	0	0
Total	\$ 58,231	52,334	59,110	59,652	59,072

### **Divisional Reconciliation to Summary Totals**

The following table reconciles the Divisional Summary totals for each year to the total expenditures shown elsewhere in this document.

**Expenditure History (Thousands of Dollars)** 

	•	2002	2003	2004	2004	2005
Division Name		Actual	Actual	Budget	Estimated	Budget
Manager & Staff	\$	31,823	31,680	38,136	33,791	40,179
Public Affairs		21,784	29,455	22,441	17,546	15,764
Legal		1,591	1,525	1,843	1,847	2,011
Finance		50,832	89,708	56,044	56,940	63,563
Engineering		81,750	93,765	47,642	40,468	52,025
Planning		6,600	6,486	7,819	5,617	7,487
Operations & Maintenance.		58,231	52,334	59,110	59,652	59,072
Adjustments:						
Warehouse Purchases						
and Issues <sup>(1)</sup>		-221	-459	-482	-95	877
Cash Flow <sup>(2)</sup>		-1,885	1,346	0	-35	2
Historical Timing Adjustment		0	0	-4,957	0	0
Additional Vacancy Savings		0	0	0	0	-600
Total Expenditures	\$	250,505	305,840	227,596	215,731	240,380

<sup>(1)</sup> Adjustments related to the timing of purchases and issues of warehouse stock. Denver Water maintains a warehousing operation that purchases materials and supplies into stock. These items are then issued and charged to jobs as needed. The Warehouse Purchases and Issues Adjustment is required to insure that the total of materials as issued balances to the amount of purchases made for warehouse stock.

<sup>(2)</sup> The Cash Flow Adjustment is the difference between expenditures as booked and disbursed. Expenditures are budgeted and reported on a modified accrual basis (as booked). Total expenditures are then converted to a cash basis (disbursed) for purposes of determining year-end designated balances.

DENVER WATER KEY	Current Denver						Div Boon
PERFORMANCE MEASURES	Water Goal	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	ACTUAL 1999	Div Resp For Performance
I. Provide Customers with High Quality Water						1000	
E=External; I=Internal A. Unfavorable quality:							
E 1. Smell-taste-# of customer							
complaints per qtr	< 36	90	125	78	55	37	O&M
E 2. Clarity - # of customer complaints per quarter	< 36	166	15	75	19	47	O&M
E 3. Hardness-# of customer	< 30	100	15	75	19	47	Odivi
complaints per quarter	< 30	0	1	1	1	17	O&M
B. Meet or exceed key DW standards							
I 1a. Turbidity - Foothills	< .1 NTU	0.05	0.04	0.04	0.04	0.04	O&M
I 1b. Turbidity - Marston	< .1 NTU	0.06 0.05	0.06 0.05	0.04 0.05	0.06 0.06	0.08 0.06	O&M O&M
I 1c. Turbidity - Moffat I 2a. Fluoride - Foothills	< .1 NTU .8 - 1.2mg/1	0.05		0.05	0.06	0.89	O&M
l 2b. Fluoride - Marston	.8 - 1.2mg/1	0.88	0.87	0.88	0.90	0.91	O&M
I 2c. Fluoride - Moffat	.8 - 1.2mg/1	0.91		0.80	0.89	0.85	O&M
I 3a. Chlorine Residual- Foothills I 3b. Chlorine Residual- Marston	1.1 - 1.5mg/1	1.52	1.54	1.43	1.48	1.44	O&M
I 3b. Chlorine Residual- Marston I 3c. Chlorine Residual- Moffat	1.1 - 1.5mg/1 1.1 - 1.5mg/1	1.44 1.53	1.54 1.45	1.51 1.56	1.49 1.58	1.41 1.41	O&M O&M
I 4a. pH - Foothills	7.5 - 8.0	7.8	7.8	7.8	7.8	7.8	O&M
I 4b. pH - Marston	7.5 - 8.0	7.7	7.7	7.7	7.8	7.9	O&M
I 4c. pH - Moffat	7.5 - 8.0	7.8	7.8	7.8	7.8	7.8	O&M
C. Meet or exceed mandated Federal stds     1. Number of reportable violations	0	0	0	0	0	0	O&M
II. Provide Customers With Excellent Service A. Positive customer contact							
E Per customer service rep contact:							
<ol> <li>Length of time to answer phones</li> </ol>	< 30 sec	272 Seconds	112 Seconds	59 Seconds	76 Seconds	49 Seconds	PUB
E 2. Length of time for problem-query	. 40 1	40.11	40.11	40.11	40.11	40.11	DUD
solution, requiring field ck.  E 3. Customer Satisfaction Survey	< 48 hrs	42 Hours	42 Hours	42 Hours	42 Hours	42 Hours	PUB
Index Level (4.0 = Best) <sup>(1)</sup>	= or < 3.0	3.6	3.5	3.3	3.4	3.6	PUB
B. Reliable service							
E 1. Outages-average DW response time	< 20 mins.	<26.5 minute	<20 minutes	25 Minutes	24 Minutes	24 Minutes	O&M
E 2. Disruptions-# of unplanned disruptions(main breaks)	208 Average	231	287	261	243	195	O&M
E 3. Disruptions - Avg time of duration	< 4 hours	4.5 Hours	7.0 Hours	7.0 Hours	6.5 Hours	7.5 Hours	O&M
E 4. # days involuntary restrictions							
(any part of day=1 day)	0 < 30	273 25	0 18	0 19	0 23	0 17	PLN PUB
E 5. # Pressure Complaints per month	< 30	25	18	19	23	17	PUB
C. Rates are appropriate for service     E. 1. Rates compared to metro water     utilities.							
a. Inside Rates (1 = lowest Rate) b. Outside Rates (1 = Lowest Rate)	Lowest 25% of survey Lowest 50% of survey	3 of 13 2 of 9	2 of 16 2 of 11	3 of 19 2 of 12	3 of 19 2 of 12	2 of 19 2 of 12	ALL DIVS ALL DIVS
D. System reliability - efficiency							
I 1. # days DW met minimum stream	2054	202	205	205	205	205	DIN
flow required  1 2. # of days did not exceed flow	365/yr.	363	365	365	365	365	PLN
thresholds NF of So Platte							
due to DW operations (excl. water							L
rights diligence opr)  I 3. # of days DW did not violate min.	365/yr.	365	365	365	365	365	PLN
pool requirements							
@Chatfield Res.(excl. those caused							
St.Eng.)	365/yr.	365	365	365	365	365	PLN
E. Treatment Plant Utilization  I 1.Foothills(base load) % production to							
total water treated	65%	59.5%	68.7%	57.0%	64.6%	75.5%	O&M & PLN
I 2.Marston(peak load) % production to	1		, ,		,		
total water treated	15%	21.2%	7.6%	19.1%	17.5%	11.5%	O&M & PLN
I 3.Moffat(peak load) % production to total water treated	20%	19.3%	23.7%	23.9%	17.9%	13.0%	O&M & PLN
F. Transmission & Distribution							
Inside Denver & Total Service:							

II. Door	DENVER WATER KEY PERFORMANCE MEASURES	Current Denver Water Goal	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	ACTUAL 1999	Div Resp For Performance
III. Prov	ride Customers With Excellent Service (co 1. # main breaks per x miles of pipe	ntinuea) 						
	per year	<1 break per 10 miles pipe/y	11.1	8.9	9.6	10.2	12.6	ENG,PLN,O&M
1	Ratio peak day to avg day delivery (10yr. Rolling Avg.)     % pipe replaced per year	2.5 rolling average 1.0%	2.03	2.03 0.42%	2.2 0.32%	2.09 0.61%	2.31 0.68%	PLN ENG,PLN,O&M
ı	System Wide: 1. Unaccounted for water % of total total water delivered	5.0% (National Avg=17.2%)	2.68%	3.46%	4.36%	2.87%	5.34%	ENG,PLN,O&M
	rcise responsible stewardship of assets Facilities maintained properly 1. Emergency Hrs. as % Preventative Maint Hours <sup>(2)</sup> 2.% O&M Div Overtime Hrs. to Total	8%	9.00%	9.60%	10.50%	11%	13%	O&M
E	O&M Div. Hrs. 3. % of fire hydrants in service	< 3% 99.90%	3.5% 99.5%	6.3% 99.5%	6.1% 99.5%	5.5% 99.2%	5.7% 99.2%	O&M O&M
B. E/I	Conservation  1. Reduce avg. annual demand from 877 (1978 base year)GAD to 744 GAD (GAD =Gal per acct per day)	<744 GAD	578	600	756	789	735	PLN & PUB
E/I	2. Avg. Conservation Dollars spent to							
	Acre Feet Saved	< \$5,000 per acre foot saved	(02-03)\$1807	(01-02)\$1822	(00-01)\$1553	('99-00)\$1494	('97-98)\$1584	PUB
	% of single-family residential customers with Xeriscape	Average of 33%	30%	30%	30%	29%	28%	PUB
C.	Workforce is productive/effective 1.Retail Population served per employee 2.Retail Population served per core	678	704	Not available	774	723	704	ALL DIVS
	employee(O&M div)	1,307 Average	1,489	Not available	1,494	1,390	1,379	O&M
	Supervisors & Managers Attending     1+Training Classes     Non-Supv, Non-Mgr Attending 1or	100%	84%	72%	73%	74%	68%	ALL DIVS
	more Training Classes  5. % of supervisory employees to non-	75%	82%	66%	65.20%	61.00%	63.00%	ALL DIVS
	supv employees  6. # lost time days due to injury per	1 to 10 FTE's	1:5.3	1:4.2	1:4.81	1:4.73	1:4.5	ALL DIVS
	per year  7. At fault vehicle accidents/million	not >75 days	122.5	138	136	165	127	ALL DIVS
	miles driven  8. Gross Turnover Rate.incl. Retirements	not >12 5-8%	9 5.50%	3 4.30%	21 7.3%	27 7.2%	18 7.3%	ALL DIVS ALL DIVS
D.	Operations are efficient					,		
	1. O&M Costs(incl.S.O.S) per (000)/Gal treated Water delivered	\$0.86 Average	\$1.57	\$1.57	\$1.07	\$0.98	\$1.04	ALL DIVS
	O&M Costs(exclS.O.S) per (000)/Gal treated Water delivered     Total exercting expenses per	\$0.79 Average	\$1.42	\$1.43	\$0.97	\$0.90	\$0.98	ALL DIVS
<u>'</u>	Total operating expenses per connection     Salaries as % operating revenue      Water Carl Content (200) and texted	\$236.58 Average 40% Average	\$345.92 40.0%	\$325.80 39.0%	\$313.32 35.0%	\$303.81 33.0%	\$293.62 38.0%	ALL DIVS ALL DIVS
'	Water Qual Cost per (000)/gal treated water delivered	\$0.02 current year	\$0.023	\$0.020	\$0.020	\$0.016	\$0.018	ALL DIVS
l I	Water Quality tests performed    Water quality tests performed	50,393.40 Average	40,968	39,859	34,035	41,846	57,661	O&M
	to of % tests required	100%	100%	100%	100%	100%	100%	O&M
1	Average annual regular pay per employee	DW step 5 approx. equal to 50th percentile in Survey	\$49,139	\$50,673	\$47,822	\$46,130	\$45,046	ALL DIVS
I	Comparable Benefits Per Annual     Survey     a. Denver Water     b. Survey - Utilities, nationwide	Approx.= to Survey Avg	59.09% 56.60%	52.18% 44.60%	48.15% 45.62%	48.23% 45.93%	49.32% 43.60%	ALL DIVS ALL DIVS ALL DIVS

	DENVER WATER KEY PERFORMANCE MEASURES	Current Denver Water Goal	ACTUAL 2003	ACTUAL 2002	ACTUAL 2001	ACTUAL 2000	ACTUAL 1999	Div Resp For Performance
	xercise responsible stewardship of assets	(continued)						
E.	Financial Stewardship							
	Optimal use of financial assets:							
E/I	a) Credit rating <sup>(3)</sup>	AA	AA+	AA+	AA+	AA+	AA+	FIN
I	b) Operating ratio:							
	1) 3 Year Moving Average			57.4%				FIN
Ι.	2) Annual		70.1%	62.7%	57.5%	52.2%	59.6%	FIN
'	c) Total Asset turnover:	> 00/	10.10/	44.00/	44.40/	44.00/	44.00/	FIN
	1) 3 Year Moving Average		10.1% 95.8%	11.0% 93.8%	11.1% 91.6%		11.0% 10.8%	FIN
Ι.	Annual     Interest Coverage		95.8%	93.8%	91.6%	102.5%	10.8%	
'	d) Interest Coverage	> or = 2.5x	Not Available	13	5.0	4.4	4.1	FIN
		- 01 – 2.0X	140t Available	4.0	5.0	7.7	7.1	1 113
IV. Exe	ercise creative stewardship of assets							
A.								
1	1.% regular employees submitting							
	suggestions per year	10%	2%	3%	3%	3%	3%	ALL DIVS
-1	2. % suggestions awarded for possible							
	cost savings	15%	0%	3%	3%	3%	4%	ALL DIVS

Denver Water's performance measures are taken from its Mission Statement. Each of the four goals expressed in the Mission Statement was identified (shown in bold witrh roman numerals). Key measures were then developed from the perspective of external (customers, media, other than Denver Water) and internal (Denver Water managers, supervisrs, employees) to measure how well the goals were being met.

#### FOOTNOTES:

DIVISION RESPONSIBLE:

ENG = Engineering Divison

FIN = Finance Division

LGL = Legal Division

MGR(HR) = Human Resources Section

MGR = Manager & Staff Division

O&M = Operations & Maintenance Division

PLN = Planning Division PUB = Public Affairs Division ALL DIVS = All Divisions

<sup>(1)</sup> Comprised of referral calls to supervisor, average hold time, mail surveys, and payment goals met

<sup>(2) 1999</sup> higher due to break in Cond. 55;1997

higher due to break in Cond. 94 <sup>(3)</sup> Follows City's Credit Rating

<sup>\*</sup> US public water systems serving more than 1 million people

# Not pictured Tony Asebedo

Started: January 16, 1970 Laborer-T&D, Plant Division Retired: June 23, 2004 T&D Mechanic, Operations & Maintenance Division

# Owen Dahmer

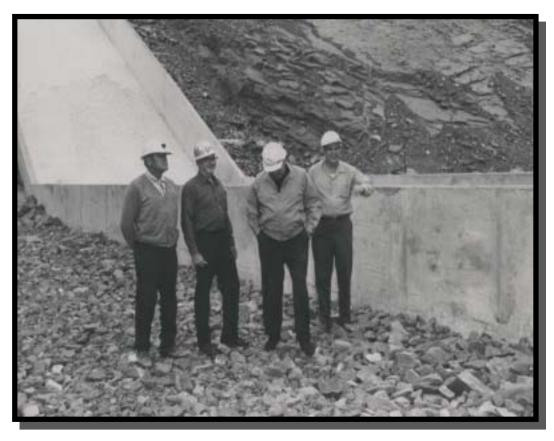
Started: August 3, 1970
Systems Analyst, Data Processing
Retired: December 8, 2004
Application Developer,
Information Technology Section





# David Gibson

Started: September 17, 1970 Laborer-T&D, Plant Division Retired: December, 2004 Maint. Mechanic - Mechanical Shop Operations & Maintenance Division



In 1970, James L. Ogilvie (pictured above  $2^{nd}$  from left) became the Manager of the Denver Water Department. He would hold this position until 1980. Ogilvie guided the Department through the challenges of managing expenditures in a time of unprecedented inflation, which would peak in 1980 at over 13 percent! To combat skyrocketing costs, a 25% rate increase was put into effective January 1, 1970.

# Section 6 – Debt Service and Obligations under Capital Leases Debt Policy

During 2002 the Board reviewed its use of debt. The review resulted in a proposed change to Section 10.1.15 of the City Charter. Voters approved the proposed change on November 5, 2002. The effect of the change was to remove the Board's ability to issue general obligation bonds on the credit of the City and to enable the Board to issue revenue bonds without voter approval of each issue. Prior to the change in the Charter, voter approval was required for the sale of revenue bonds.

In its debt guidelines the Board reaffirms its long-standing policy of using debt financing for system expansion and improvements and prohibiting its use for payment of operating and maintenance expenses. The Board also reaffirmed that its long-standing program of current refunding may be continued. However, the expectation is that the Board will be less likely to use the current refunding program in the future because the 2002 amendment to the City Charter made accessing the debt markets less cumbersome.

In the past, the Board has financed some capital improvements with capital leases. Certain improvements at the Marston and Moffat Treatment plants were financed with capital leases that were securitized using a certificate of participation (COP) structure. The Board also financed its interest in Wolford Mountain Reservoir with a capital lease. Although the use of capital leases is not prohibited in the revised debt guidelines, the Board will be less likely to use COPS or other capital leases in the future because the 2002 City Charter amendment provides greater flexibility to use revenue bond financing, which is generally more economical.

# **Outstanding Debt and Obligations under Capital Leases**

The table below summarizes information about the outstanding issues as of December 31, 2004.

Type of Obligation	Par Value Outstanding	Market Value Outstanding	Coupon Range	Weighted Average	Weighted Average
	(in millions)	(in millions)		Coupon	TIC <sup>(a)</sup>
GO Bonds	\$ 117.4	\$ 124.3	2.25 - 6.0%	4.831%	4.270%
Revenue Bonds	164.3	175.3	2.50 - 5.5%	4.653%	3.655%
COPS	<u>54.5</u>	<u>58.4</u>	4.00 - 5.5%	4.645%	4.319%
Sub-total Marketable					
Debt Securities	\$ 336.2	<u>\$ 358.0</u>			
Other Capital Leases	28.6 <sup>(b)</sup>	n/a	6.75% <sup>(c)</sup>	6.750% <sup>(c)</sup>	6.750% <sup>(c)</sup>
Total outstanding bonds	and				
capital lease obligations	\$ 364.8			4.873%	4.194%

<sup>(</sup>a)True Interest Rate at time of sale

<sup>(</sup>b) Present value of future obligation for financial reporting purposes

<sup>(</sup>c)Contractual rate

<sup>1.</sup> A COP is a bond-like security that represents the right to receive a defined amount of rental revenue from a specified lease agreement. Legally, each year the Board decides whether to allocate funds for the lease payments. The annual nature of the lease obligation means that credit rating agencies and certificate holders must evaluate both the importance of the leased facility to the Board's operations and the credit history of the Board.

A schedule of outstanding debt and obligations under capital leases appears on page 92.

# **Payment Schedule**

The Board's debt guidelines provide that the year-end balance in the water works fund should exceed the amount needed to service its outstanding debt and meet all obligations under capital leases during the following year by at least \$5 million. The Board has been in compliance with this guideline each year since it was first adopted in 1995.

The total principal and interest payment obligations for the years 2005-2009 are as follows 1:

2005	\$43,465
2006	43,350
2007	46,555
2008	43,367
2009	43,108

With the current payment schedule, 39% of the principal amount of outstanding bonds and capital lease obligations will be retired by the end of 2009; 69% will be retired by the end of 2014 and 86% will be retired by the end of 2019. All marketable securities mature or may be called prior to December 31, 2014. The final stated maturity of all outstanding bonds and capital lease obligations occurs on October 1, 2029.

#### **Denver Water Debt Guidelines**

as adopted by the Board on May 28, 2003 - Item V-G-4

Denver Water will use the following guidelines to evaluate when and how to use debt financing in the future.

- 1. Debt proceeds may not be used to pay operating and maintenance expenditures.
- 2. Debt may be used only for refunding current maturities of existing debt (called current refundings), refunding future maturities of existing debt (called advance refundings) and for capital improvements.
- Current refundings will be structured so that the final maturity of the debt does not exceed the useful
  life of the asset. In addition, refundings will be structured to facilitate an orderly and regular retirement of debt and to comply with statutory regulations while taking advantage of favorable market
  conditions.
- 4. Advance refundings will be considered when the net present value savings on the bonds being refunded is greater than 3.0% and the refunding is permitted by existing statutory regulations; or if extraordinary circumstances exist, when the net present value of savings is sufficient to satisfy existing statutory regulations.
- 5. Capital improvements of a normal, recurring nature and amount will generally not be financed with debt. Rather, this type of improvement will be included in the calculation of the revenue requirement from rates. This will result in routine capital expenditures being financed internally on a "pay-as-yougo" basis.

<sup>1.</sup> A more detailed schedule of payment appears on page 93

- 6. Non-recurring capital projects that expand the system or that are otherwise unusual in nature or amount may be financed externally. Because capital outlays for projects of this type are often made in advance of growth in demand, repayment of debt used to finance such projects may be deferred until revenues begin to be collected.
- 7. As there is a limited pool of resources, whether from internal sources or from debt, each proposed capital improvement will be assessed within the context of how it impacts the reliability and integrity of the total system and whether it is consistent with Denver Water's mission and long-term goals. During the capital planning and budgeting process, projects will be ranked to determine which ones are most essential to meet the Board's overall objectives. Projects that are ranked highest will then be reviewed with respect to appropriateness for external financing. An assessment of the impact on Denver Water's bond rating, given the availability and cost of external financing, will be made prior to final approval of the proposed projects for inclusion in the budget and capital plan.
- 8. Denver Water's Treasury section will monitor the marketplace and stay abreast of new types of financing instruments and sources of funds. In evaluating the appropriateness of various financing sources for specific projects, Denver Water will consider the expected life of the asset, the nature of covenants, the impact on the organization's future financial flexibility, the amount of uncertainty and market risk associated with the type of financing being considered, the current regulatory and economic environment and whether revenue and expense projections indicate that Denver Water will be able to support the projected level of debt.
- 9. Denver Water desires to maintain its stand-alone revenue bond rating at a level of AA or better. After consulting with the rating agencies, Denver Water understands that maintaining its actual and historical level of debt service coverage rate of 2.2x or better will be important to maintaining the rating. Merely meeting the covenants contained in the bond resolution is not expected to be adequate. For that reason, the following, more stringent guidelines will be used in financial planning activities:
  - a. The Debt Ratio should not exceed 40%.
  - b. Interest Coverage (excluding SDCs) should be equal to or greater than 2.5x
  - c. Debt Service Coverage should be equal to or greater than 2.2x, as defined in the bond resolution.
  - d. The year-end balance in the Water Works Fund, net of Principal and Interest Requirements for the next 12 months, should be equal to or greater than \$5 million.

#### Calculations (For definitions of terms used below, see Section 8)

**Debt Ratio** - Total Debt divided by the sum of net fixed assets plus net working capital.

**Debt Service Coverage** - Net Revenues divided by scheduled principal and interest payments, before any refunding, for the same 12 month period.

**Interest Coverage** - Net Revenues divided by Interest Requirements.

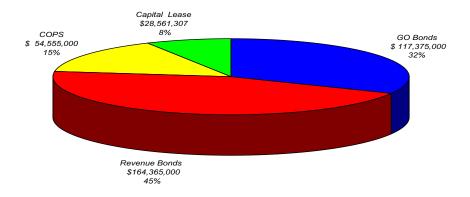
#### DENVER WATER DEPARTMENT SCHEULE OF OUTSTANDING BONDS AND OBLIGATIONS UNDER CAPITAL LEASES at December 31. 2004

DATE	MATURITY VALUE	COUPON RATE	DATE	MATURITY VALUE	COUPON
General Obligation Bonds	VALUE	RATE	Revenue Bonds	VALUE	KAIL
Series 1995 - Callable on 10/1/05	@ 100.0		Series 2003A - Callable or	n 6/1/13 @ 100.0	
10/1/05	1,200,000.00	5.000%	12/1/05	100,000.00	4.0009
10/1/10	545,000.00	5.000%	12/1/06 12/1/07	100,000.00 100,000.00	4.0009
Series 1996 - Callable on 10/1/06	@ 100.0		12/1/08	100,000.00	4.000
10/1/05	1,185,000.00	5.000%	12/1/09	100,000.00	2.5009
10/1/06	1,245,000.00	5.000%	12/1/10	100,000.00	2.7509
10/1/07	120,000.00	5.100%	12/1/11	200,000.00	3.000
10/1/08	135,000.00	5.200%	12/1/12	1,000,000.00 1,145,000.00	5.0009
10/1/09 10/1/10	140,000.00 145,000.00	5.300% 5.375%	12/1/13 12/1/14	1,540,000.00	5.0009
10/1/11	155,000.00	5.375%	12/1/15	1,550,000.00	3.5009
	,		12/1/16	2,110,000.00	4.000
Series 1997 - Callable on 10/1/07			12/1/17	3,570,000.00	4.7509
10/1/05	1,330,000.00	4.600%	12/1/18	3,885,000.00	4.750
10/1/06 10/1/07	1,400,000.00 1,550,000.00	4.650% 5.500%	12/1/19 12/1/20	4,110,000.00 6,160,000.00	4.750° 4.750°
10/1/08	275,000.00	4.800%	12/1/21	7,355,000.00	4.750
10/1/09	325,000.00	4.900%	12/1/22	7,720,000.00	4.750
10/1/10	405,000.00	5.050%	12/1/23	8,955,000.00	4.2509
10/1/11	460,000.00	5.100%			
10/1/12	475,000.00	5.150%			
Series 1999 - Callable on 10/1/13	@ 100.0		Series 2003B - Callable or 12/1/05	n 6/1/13 @ 100.0 2,715,000.00	3.0009
10/1/10	1,820,000.00	6.000%	12/1/06	6,680,000.00	3.000%
10/1/11	660,000.00	5.500%	12/1/07	100,000.00	2.5009
10/1/13	500,000.00	5.500%	12/1/08	100,000.00	5.0009
10/1/29	11,550,000.00	5.600%	12/1/09	7,830,000.00	5.0009
0 1 0000 0 11 11	0.400.0		12/1/10	10,725,000.00	5.0009
Series 2000 - Callable on 10/1/11		E E000/	12/1/11	400,000.00 5,150,000.00	3.7509 4.0009
10/1/11 10/1/12	2,290,000.00 225,000.00	5.500% 4.800%	12/1/12 12/1/13	8,025,000.00	4.000
10/1/13	230,000.00	4.875%	12/1/14	8,400,000.00	5.000
10/1/14	245,000.00	5.000%	12/1/15	8,825,000.00	5.0009
10/1/15	255,000.00	5.000%	12/1/16	11,860,000.00	5.0009
Series 2001A - Callable on 9/1/11	@ 100.0		Series 2004 - Callable on	12/01/14@100.0	
9/1/05	640,000.00	4.000%	12/1/05	460,000.00	5.000
9/1/06	645,000.00	4.000%	12/1/06	485,000.00	5.000
9/1/07	670,000.00	4.000%	12/1/07	1,540,000.00	3.000
9/1/08 9/1/09	700,000.00 730,000.00	4.000% 4.000%	12/1/08 12/1/09	3,015,000.00 3,320,000.00	5.000
9/1/10	760,000.00	4.125%	12/1/10	9,285,000.00	5.500
9/1/11	795,000.00	4.200%	12/1/11	4,215,000.00	5.500
9/1/12	830,000.00	4.300%	12/1/12	5,045,000.00	5.000
9/1/13	700,000.00	4.400%	12/1/13	2,755,000.00	5.000
9/1/14	900,000.00	4.500%	12/1/14	2,900,000.00	5.000
9/1/15	980,000.00	4.600%	12/1/15	3,050,000.00	5.0009
9/1/16	900,000.00	4.700%	12/1/16 12/1/17	705,000.00 735,000.00	4.2509
Series 2001B - Not subject to option	onal redemption prior to maturity	у	12/1/18	770,000.00	4.500
9/1/05	11,705,000.00	5.000%	12/1/19	805,000.00	4.500
9/1/06	9,615,000.00	5.000%	12/1/20	840,000.00	4.5009
9/1/07	20,145,000.00	5.000%	12/1/21	875,000.00	4.1259
9/1/08	17,655,000.00	5.000%	12/1/22	915,000.00	4.1259
9/1/09	10,340,000.00	4.000%	12/1/23 12/1/24	950,000.00 990,000.00	4.2509
Series 2002 - Callable on 10/1/12					
10/1/05	430,000.00	2.250%	Sub-total Revenue Bond	s 164,365,000.00	
10/1/06	440,000.00	2.500%	Certificates of Participat	i	
10/1/07 10/1/08	450,000.00 465,000.00	2.750% 3.000%		rtificates - Not subject to optio	nal
10/1/09	485,000.00	3.125%	redemption prior to maturi		
10/1/10	500,000.00	3.250%	11/15/05	2,250,000.00	4.100
10/1/11	520,000.00	3.500%	11/15/06	2,340,000.00	4.150
10/1/12	540,000.00	3.500%	11/15/07	2,450,000.00	4.200
10/1/13	565,000.00	3.500%	11/15/08	4,230,000.00	4.250
10/1/14	590,000.00	3.700%	11/15/09	4,430,000.00	4.300
10/1/15	615,000.00	3.875%	11/15/10	4,605,000.00	4.400
10/1/16 10/1/17	640,000.00 670,000.00	4.000% 4.000%	11/15/11	750,000.00	5.000
10/1/17	525,000.00	4.100%	2001 Lease Purchase Co	rtificates - Callable on 11/15/1	1 @
10/1/19	515,000.00	4.200%	100.0	rumoutes - Gandble UII 11/13/1	. 6
10/1/20	190,000.00	4.300%	11/15/05	2,550,000.00	4.5009
10/1/21	810,000.00	4.400%	11/15/06	2,665,000.00	4.5009
10/1/22	850,000.00	4.500%	11/15/07	2,785,000.00	5.0009
			11/15/08	1,480,000.00	4.000
GO Bonds	117,375,000.00		11/15/09	1,540,000.00	4.000
			11/15/10	1,600,000.00	4.125
Canital Lagea			11/15/11	11,255,000.00	5.500
Capital Lease Wolford Mountain Lease			11/15/12 11/15/13	1,760,000.00 1,835,000.00	4.375° 4.500°
	final payment is due 1/1/2020		11/15/14	1,920,000.00	4.500
Semi-annual payments of \$1.5 mil			11/15/15	2,005,000.00	5.0009
PV of Futures Obligation	28,561,306.71	6.750%	11/15/16	2,105,000.00	5.000%
			COPs	54,555,000.00	

# Schedule of Payments Due on Outstanding Debt and Obligations Under Capital Leases (Thousands of Dollars)

	2005	2006	2007	2008	2009	2010-2014	2015-2019	2020-2024	2025-2029	2030+	Total
Principal											
GO	16,490	13,345	22,935	19,230	12,020	14,855	5,100	1,850	11,550		117,375
REV	3,275	7,265	1,740	3,215	11,250	60,885	41,975	34,760			164,365
COPs	4,800	5,005	5,235	5,710	5,970	23,725	4,110				54,555
Wolford	1,090	1,165	1,245	1,330	1,422	8,714	12,144	1,451			28,561
Total Principal	25,655	26,780	31,155	29,485	30,662	108,179	63,329	38,061	11,550	-	364,856
As Percentage of total	7.0%	7.3%	8.5%	8.1%	8.4%	29.6%	17.4%	10.4%	3.2%	0.0%	100.0%
Cumulative %	7.0%	14.4%	22.9%	31.0%	39.4%	69.0%	86.4%	96.8%	100.0%	100.0%	
Interest											
GO	5,670	4,869	4,224	3,086	2,141	6,445	4,136	3,429	3,234	-	37,234
REV	7,696	7,539	7,311	7,258	7,098	26,200	12,624	4,212			79,938
COPs	2,534	2,327	2,110	1,868	1,629	3,602	310				14,380
Wolford	1,910	1,835	1,755	1,670	1,578	6,286	2,856	49			17,939
Total Interest	17,810	16,570	15,400	13,882	12,446	42,533	19,926	7,690	3,234	-	149,491
Total Due											
GO	22.160	18,214	27,159	22,316	14,161	21,300	9,236	5,279	14,784	-	154,609
REV	10,971	14.804	9,051	10,473	18,348	87,085	54,599	38,972	-	-	244,303
COPs	7,334	7,332	7,345	7,578	7,599	27,327	4,420	-	-	-	68,935
Wolford	3,000	3,000	3,000	3,000	3,000	15,000	15,000	1,500	-	-	46,500
Total Payments Scheduled	43,465	43,350	46,555	43,367	43,108	150,712	83,255	45,751	14,784	-	514,347

Denver Water Debt and Capital Leases at December 31, 2004



The Board expects that the percentage of water revenue bonds will increase slowly to 100% as the general obligations mature or are refunded.



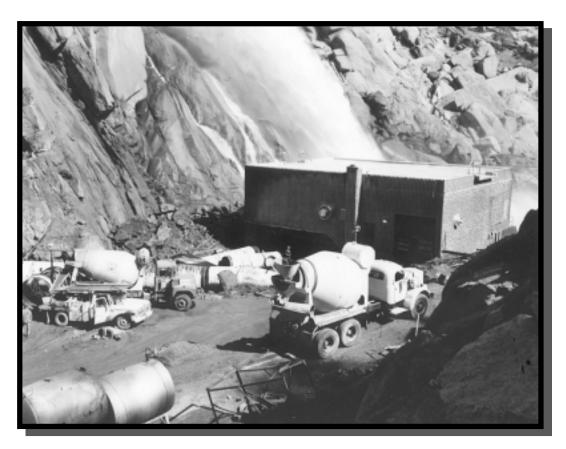
# Michael Franz

Started: September 1, 1971
Temporary Laborer, Planning Division
Retired: January, 2004
Manager of Planning & Security,
Information Technology Section

# Norman Riney

Started: December 18, 1972 Systems Analyst, Data Processin Retired: July 10, 2004 Information Systems Manager, Information Technology Section





The photograph above shows work in progress on the Cheesman Dam Outlet works, a \$1.1 million project completed in 1972. This year was a busy one for the Denver Water Department, the Kassler pump station was completed, design work began on the Foothills Treatment Complex, and Water Board employees began using computers for the first time. In order to carry out future capital projects, the Denver Water Department asked voters for approval of a \$200 million bond issue which was defeated in November.

# Section 7 - Designated Balance

# **Designated Balance Summary**

Denver Water 2005 began with an actual Designated Balance of \$154.9 million. The 2005 budget projects this balance to increase by receipts of \$232.7 million and decrease by expenditures of \$240.4 million, resulting in a total 2005 Ending Balance of \$147.3 million.

- 1. The Designated Balance for system operations and capital for each year reflect the following factors: Three months of the next year's operation and maintenance.
- 2. 50% of the next year's non-expansion capital (normal replacements and improvements).
- 3. One year of debt service.
- 4. Self-Insurance continuing at 5% of the next year's operating receipts.
- 5. Future Capital consisting of the difference between the total designated balance and the total of amounts for operation and maintenance, non-expansion capital, debt service and self-insurance contingencies.
- 6. Temporary drought and tap surcharges to encourage water conservation during drought conditions.

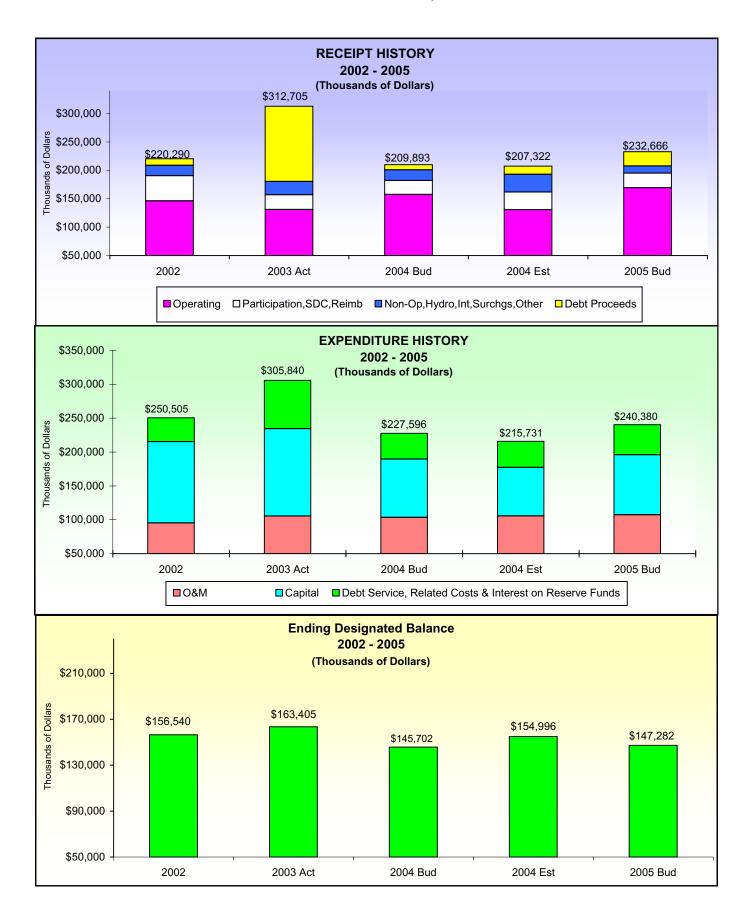
# Designated Balance 2002 - 2005 (Thousands of dollars)

	_	2002 ctual		2003 Actual		2004 Budget		2004 Estimated		2005 Budget
Operation & Maintenance (3 months, next year)	\$ 2	27,007	\$	28,611	\$	29,001	\$	29,669	\$	31,576
Non-expansion Capital (50% of normal replacements and improvements, next year)	,	10,607		14,504		15,123		16,976		14,905
Debt Service (1 year, next year)	7	70,853		38,146		42,376		44,428		48,567
Self Insurance (5% of Operating Receipts, next year)		6,653		7,873		8,232		8,475		9,498
Future Capital:										
Supply		22,598		50,382		37,703		13,990		15,645
Water Treatment	•	14,689		8,997		3,813		3,368		1,676
Transmission & Distribution		376		600		847		8,549		10,616
Other		1,113		2,369		8,607		15,921		17,456
Drought:										
Drought Surcharge		776		8,001		0		14,058		0
Drought Surcharge Rebate		0		0		0		(1,633)		(2,657)
Tap Surcharge		1,333		1,641		0		1,195		0
Hayman Fire Repair Grants: NRCS Grant from USDA (70% of est \$3.8 million of costs between Sept 16, 2002 through April 23, 2003	Ω	535		2,108		0		0		0
36pt 10, 2002 tillough April 23, 2000	).	333		2,100		U		U		U
EPA Section 319 Grant (60% match of est \$833,333 cost for										
revegetation	-	0	-	173	-	0	-	0	_	0
Total Designated Balance	\$ <u>15</u>	6,540	\$_	163,405	\$_	145,702	\$	154,996	\$_	147,282

# Comparison of Receipts and Expenditures 2002 - 2005

(Thousands of Dollars)

		2002		2003		2004		2004		2005
		Actual		Actual		Budget		<b>Estimated</b>		Budget
Beginning Designated Balance	\$	186,755	\$	156,540	\$	163,405	\$	163,405	\$	154,996
Receipts:										
Operating	\$	146,210	\$	131,038	\$	157,450	\$	130,838	\$	169,492
Drought Surcharge		776		8,001		0		14,058		0
Drought Surcharge Rebate		0		0		0		(1,633)		(2,657)
Non-Operating		3,169		3,154		3,016		2,598		2,974
Hydropower		1,456		1,402		1,706		1,188		1,816
System Development Charges		36,644		19,649		22,034		24,917		22,586
Tap Surcharge		1,333		1,641		0		1,195		0
Participation		5,573		2,835		2,036		2,241		2,593
Reimbursements & Grants		2,052		3,420		494		3,646		450
Interest on Investments		8,459		4,879		4,297		3,164		4,234
Other	_	3,225	_	4,248	_	9,860		10,810	_	6,178
Subtotal Receipts	\$	208,897	\$	180,267	\$	200,893	\$	193,022	\$	207,666
Debt Proceeds	-	11,393	_	132,438	_	9,000		14,300	_	25,000
Total Receipts	\$	220,290	\$_	312,705	\$_	209,893	\$	207,322	\$_	232,666
Expenditures:										
•										
Operation & Maintenance Programs: Raw Water	\$	17,550	•	15 602	æ	14.000	¢	15.051	¢	17 104
	Ф	300	\$	15,603	\$	14,089	\$	15,051	\$	17,194
Recycled Water				1,153		4,528		3,479		4,092
Water Treatment		18,083		20,369		21,144		21,720		23,330
Delivery		44,462		54,724		50,216		52,803		47,446
General Plant	_	15,058	_	13,614	_	13,606		12,640	_	15,232
Total Operation &	_		_		_					
Maintenance Expenditures	\$ <u>_</u>	95,453	<b>\$</b> _	105,463	\$_	103,583	\$	105,693	<b>\$</b> _	107,294
Capital Programs:										
Raw Water	\$	15,341	\$	19,918	\$	16,456	\$	11,153	\$	26,449
Recycled Water		31,467		54,689		17,010		13,025		2,406
Water Treatment		27,330		15,326		4,789		7,271		5,139
Delivery		30,724		31,187		34,718		29,180		38,104
General Plant		14,932		7,919		18,119		10,964		16,560
Historical Timing Adjustment		0		0		(4,957)		0		0
Total Capital Expenditures	\$	119,794	\$	129,039	\$	86,135	\$	71,593	\$	88,658
Total Suprial Expolicitures	•	110,701	•	120,000	Ψ	00,100	۳	7 1,000	Ψ	00,000
Debt Service, Related Costs and	\$	35,258	\$	71,338	\$	37,878	\$	38,445	\$	44,428
Interest on Reserve Funds	-				_		•			
Total Expenditures	\$	250,505	\$	305,840	\$	227,596	\$	215,731	\$	240,380
	-		_		_				_	
Ending Designated Balance	\$	156,540	\$_	163,405	\$_	145,702	\$	154,996	\$_	147,282



# Not pictured William Quintana

Started: October 29, 1973 Engr. Tech., Engineering Division Retired: September 10, 2004 Meter Repairer - Meter Shop Public Affairs Division



# Henry Workman, III

Started: December 17, 1973
Draftsman, Engineering
Retired: January 8, 2004
Appraiser-Negotiator,
Engineering Division



The first half of 1973 saw growth in the Denver Water Department service area, with over 5,000 taps issued between January and June. High interest rates, coupled with a shortage of available mortgage money, curtailed the building boom and the number of new taps plummeted in the second half of the year. The voters of Denver relented and approved a \$160 million capital financing bond issue, which they had voted down the previous year. The picture above shows Water Department crews engaged in the construction of the Highlands Reservoir.

# **Section 8 - Glossary of Terms**

# Acronyms

AF

Acre Foot

**AMWA** 

Association of Metropolitan Water Agencies

**AWWA** 

American Water Works Association

COP

Certificate of Participation

CIS

**Customer Information System** 

**CWA** 

Clean Water Act

DIA

**Denver International Airport** 

DW

Denver Water

**EPA** 

**Environmental Protection Agency** 

**ERT** 

**Encoder Receiver Transmitter** 

**GAD** 

Gallons per Account per Day

**GIS** 

Geographic Information System

G. O. Bonds

**General Obligation Bonds** 

**IRP** 

Integrated Resource Planning

**MGD** 

Millions of Gallons per Day

**NRCS** 

Natural Resources Conservation Services

**NWRS** 

National Water Resource Association

**RCRA** 

Resource Conservation and Recovery Act

**PACSM** 

Platte and Colorado Simulation Model

**WUWC** 

Western Urban Water Coalition

#### **Definitions**

#### **Annual Yield**

Maximum basic demand the water supply could meet throughout a period of historical or synthesized hydrological conditions.

#### **Bonds**

Debt instruments issued by a state or local government. According to the Charter, the Board may issue revenue bonds which are secured solely by it's revenue. In the past it was able to issue general obligation bonds that were secured by the full faith and credit of the City of Denver.

#### **Booked**

Accrual method of accounting in which expenses are recognized when the liability is incurred.

### **Budget**

A financial plan for a specified period of time (fiscal year) that assigns resources to each activity in sufficient amounts so as to reasonably expect accomplishment of the objectives in the most cost effective manner.

# **Capital Work Plan**

A category of Master Plan items that are considered to be of a capital nature. Includes projects having a depreciation life of over one year and tends to benefit future periods, or has the effect of increasing the capacity, efficiency span of life or economy of an existing fixed asset. Example: the construction of a new conduit.

# **Capital Leases**

A lease having essentially the same economic consequences as if the lessee had secured a loan and purchased the leased asset.

#### Casual Employee

An employee who works on an intermittent basis as a summer employee or during other brief periods.

#### **Certificate of Participation**

Evidence of assignment of proportionate interests in rights to receive certain revenues pursuant to a lease purchase agreement.

### **Chart of Accounts**

Listing of account numbers and their descriptions.

#### **Contract Payments**

Consists of contract payments for construction, materials purchased for contractor installation, acquisition of land and land rights and water rights.

# **Corporate Culture**

Values that set a pattern for a company's activities, opinions and actions.

#### **Cost Control Center**

A term used to denote a responsibility center. It is an organizational unit that has been placed in charge of accomplishing certain specified tasks. Example: Water Control Section.

### **Customer Information System**

A computer system that tracks and bills customer's water consumption

#### **Customer Taps**

A physical connection to a distribution main that, together with appropriate license affects water service to a licensed premise.

#### **Debt Guidelines**

A statement from the Board with respect to appropriate uses of external financing.

#### **Debt Service**

Principal and interest on debt and payment under capital leases.

## **Demand Side Management**

Term used when rebates are given when a facility can reduce power consumption.

### **Designated Balance**

The beginning and ending balance of the Water Works Fund are classified or designated into two categories for presentation purposes; the portion related to the Land Sales Account and the remainder that is available for System Operations and Capital purposes.

#### **Direct Materials**

Includes materials and supplies purchased for direct use and fuel and oil for vehicles and equipment (non-stores issues only).

#### **Disbursements**

Money paid out for expenses, liabilities or assets.

# **Discretionary Employee**

The charter of the City and County of Denver allows the Board to establish a classification of employees who have "executive discretion", who shall number no more than 2% of all persons employed, and shall serve solely at the pleasure of the Board.

#### **Diversity Training**

Objective of providing skills for managing and working with people of all races, genders and cultures.

#### **Division**

Largest organizational unit reporting to the Manager.

#### **Employee Benefits**

Employee Benefits are expenditures paid by Denver Water for Worker's Compensation, Social Security, Retirement, Employee Assistance Program, Health and other insurances. It does not include employee withholdings or unemployment insurance.

## **Endangered Species Act**

The federal law that sets forth how the United States will protect and recover animal and plant species whose populations are in dangerous decline or close to extinction. The law protects not only threatened and endangered species but also the habitat upon which species depend.

#### **Enterprise Fund**

A type of propriety fund or a governmental unit that carries on activities in a manner similar to a private business.

#### **EPA Section 319**

Environmental Protection Agency Program to provide funds to agencies to assist in clean water protection.

### **Encoder Receiver Transmitter (ERT)**

An electronic device that receives a signal from a water meter, encodes the current reading into a digital signal, and transmits it to a meter reader

#### **Federal Statutes**

Statutes enacted by Congress relating to matters within authority delegated to federal government by the U.S. Constitution.

#### **Fund**

An accounting entity with a set of self-balancing accounts that is used to account for financial transactions for specific activities of government functions.

### **General Equipment**

Computer equipment, office furniture and equipment, transportation equipment, storehouse equipment, construction and maintenance tools and equipment, chemical laboratory equipment, power operated equipment, communication equipment, garage and shops equipment and miscellaneous equipment.

#### **General Obligation Bonds (GO Bonds)**

A security representing the promise to repay borrowed money secured by the full faith and credit of the governmental borrower.

#### Goals

Overall end toward which effort is directed.

# **Governmental Accounting Standards Board (GASB)**

A board which establishes the generally accepted accounting principles for state and local governmental units.

#### **Gross Revenue**

All income and revenues, from whatever source, including system development charges and participation payments, excluding only money borrowed and used for providing capital improvements or other receipts legally restricted to capital expenditures.

## **Historical Timing Adjustment**

Estimate of budget variances primarily due to changes in capital construction schedules and the timing of obtaining permits and acquiring rights-of-way.

### Hydropower

Hydroelectric power of/or relating to production of electricity by water power.

#### **Interest Requirements**

As used in the debt guidelines, scheduled interest payments during the 12 month period following the date of calculation.

#### Infill

Undeveloped areas within the combined service area that Denver Water would be expected to serve in the future.

### **Integrated Resource Planning (IRP)**

A method for looking ahead using environmental, engineering, social, financial and economic considerations; includes using the same criteria to evaluate both supply and demand options while involving customers and other stakeholders in the process.

# **Introductory Employee**

An employee who is newly appointed to a position and is serving an introductory period, generally of six month's duration.

#### **Lease Payments**

Periodic payments made in order to obtain use of a facility or piece of equipment.

## **Long-Term Debt**

Debt with a maturity of more than one year from date reported.

## **Master Plan**

Expenditures identified by projects and activities that are necessary to accomplish the Department's overall operating goals and objectives. The Master Plan, or Program Budget, is divided into a Capital Work Plan and an O&M Work Plan.

#### **Master Plan Item**

A specific activity or project that is identified in the Master Plan.

#### **Modified Accrual Basis**

Accounting method in which expenditures are reported and budgeted "as booked". The difference between expenditures "as booked" and disbursed is adjusted to determine the ending cash and investment balance amounts.

#### **Municipal Water Utilities**

Public entities whose responsibility is to deliver water to the customers.

#### **Net Revenues**

Gross Revenue less Operating and Maintenance Expenses.

### **Non-Operating Revenue**

As used in this document, revenue received from payments for services such as main inspections, installation of taps, calculating and mailing of sewer bills and other such services.

#### Non-Potable

Water not suitable for drinking. (See also Potable)

### **Objectives**

Something toward which effort is directed - an aim, goal or end of action.

# **Operating Reserves and Restricted Funds**

The amount of cash and invested funds available at any point in time. The balance is the Water Works Fund as defined in this glossary.

## **Operating Revenue**

Revenue obtained from the sale of water.

#### Operation and Maintenance (O&M) Work Plan

A category of Master Plan items not capital in nature, that are normally ongoing activities and pertain to the general operations of Denver Water.

#### Other

Expenditures for items such as payroll deductions, sales tax, insurance claims, cash over and short, and budget adjustments.

#### Other Services

Expenditures for items such as training, employee expenses, rents and leases, ditch assessments, convention and conference expenses, subscriptions, maintenance and repair agreements and memberships.

#### **Participation Agreement**

An agreement in which a distributor or developer pays for the cost of the distribution facilities such as conduits, treated water reservoirs or pump stations required to provide service within that district from the nearest existing available source.

#### **Potable**

Water that does not contain pollution, contamination, objectionable minerals or infective agents and is considered safe for domestic consumption; drinkable. (See also Nonpotable)

#### **Principal and Interest Requirements**

As used in the debt guidelines, interest requirements plus the current portion of long-term debt. (Includes general obligation bonds, certificates of participation, and capital leases.)

#### **Professional Services**

Consists of consultant payments for such activities as facility design, legal work and auditors.

### **Program**

An organized group of activities and the resources to carry them out, aimed at achieving related goals.

# **Program Budget**

A method of budgeting in which the focus is on the project and activities that are required to accomplish Denver Water's mission, goals and objectives. It provides for consideration of alternative means to accomplish these criteria. It also provides a control device for higher level management and cuts across organizational lines. Resources are allocated along program lines and across organizational lines.

## **Program Element**

Series of smaller categories of activities contained in the program such as raw water, water treatment, etc.

# **Project Employee**

A contract worker assigned to a project of more than one year's duration and receiving a limited benefits package.

#### Refunds

Includes System Development Charge Refunds and Customer Refunds.

# **Regular Employee**

An employee who has satisfactorily completed an introductory period and has been approved by the Board to receive the rights and privileges of a tenured employee.

## **Regular Pay**

Includes all straight-time salaries and wages earned, leaves, tuition refunds, suggestion awards, swing and graveyard shift payrolls, and safety equipment allowances. Regular pay consists of all payroll items except for overtime pay.

#### Safe Drinking Water Act (SDWA)

Federal legislation passed in 1974 that regulates the treatment of water for human consumption and requires testing for and elimination of contaminants that might be present in the water.

#### Stores Issues

Includes materials and supplies issued from inventory and fuel and oil for vehicles and equipment.

#### Strategic Plan

Process that is a practical method used by organizations identifying goals and resources that are important to the long-term well being of its future.

#### **Streamline Pay**

Automatic deduction of bills from customers' checking accounts.

## **System Development Charges**

A one-time connection charge that provides a means for financing a portion of the source of supply, raw water transmission facilities, treatment plants and backbone treated water transmission facilities required to provide service to a new customer. Sometimes called a tap fee.

# **Temporary Employee**

An employee hired as an interim replacement or temporary supplement of the work force. Assignments in this category can be of limited duration or indefinite duration, but generally do not exceed one year.

# Type of Expenditure

A classification of resources or commodities that will be budgeted and charged to projects and activities by Cost Control Centers.

# **Utilities & Pumping**

Consists of gas, electric and telephone, electricity wheeling charges, replacement power purchased and power purchased for pumping.

#### **Water Conservation**

Obtaining the benefits of water more efficiently, resulting in reduced demand for water. Sometimes called "end-use efficiency" or "demand management."

#### **Water Revenues**

Revenues generated through billing process from the sale of water.

#### Waterworks Fund

A fund into which are placed all revenues received for the operation of the water works system and plant together with all monies coming into said fund from other sources. Denver Water is allowed by the City Charter to have only one fund, the Water Works Fund, for all of its receipts and expenditures. The balance of the Water Works Fund is referred to in this budget document as the Designated Balances, Capital and Land Sales Account.

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Antoinette Chavez
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